

OBSERVATIONS  
AND  
SUGGESTIONS  
ON  
BRUSH  
- WORK



# The Authors copy

The author is Frederick Hitchman  
it was written in the first  
Year service with the  
Educational Association;

The author of Observations  
& my questions on tree arm  
drawing appeared in the  
Teachers aid first, and  
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form published by Charles  
Hible and ran through  
five editions

The authors name was not  
mentioned in either book  
as he had to carry them & sell them  
from other book "No"

It is a thing not done,

In the best circles,

Or in literary circles,

W.H.

OBSERVATIONS AND SUGGESTIONS  
ON  
**BRUSHWORK**  
AND  
**COLOUR STUDY**



OBSERVATIONS AND SUGGESTIONS  
ON  
BRUSHWORK AND  
COLOUR STUDY

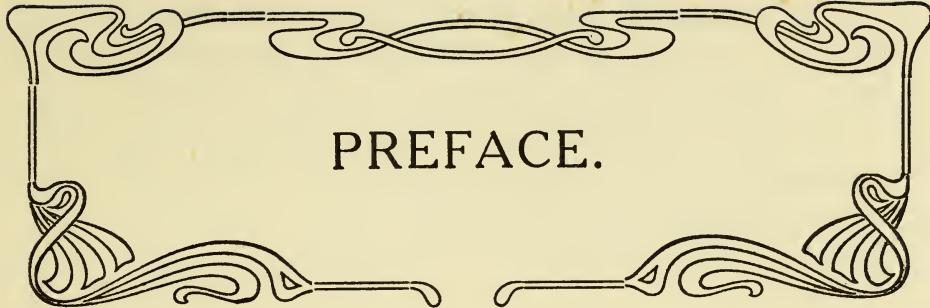
BY THE AUTHOR OF "OBSERVATIONS AND  
SUGGESTIONS ON FREE-ARM DRAWING"

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## PREFACE.

IN the following chapters an endeavour has been made, firstly, *Focussing the Subject.* to bring this form of drawing and hand and eye training "into focus" with other subjects of instruction; secondly, to give prominence to the more important features of the subject; and thirdly, to set forth suggestions to meet some of those difficulties that inevitably arise in the preparation and carrying out of any scheme of drawing that includes brushwork.

It is impossible to anticipate all the difficulties to which the varying circumstances affecting individual schools may give rise, but it is hoped that some of the following suggestions, based on a varied experience and critical observation of the phases brush-work has passed through, may clear away some popular misconceptions, and lead to the solution of some of the difficulties likely to be experienced by teachers who are undertaking this branch of educational work.

The word "pattern" is used throughout this book to mean *Pattern or Design.* an orderly or even a beautifully ordered arrangement of lines and units of form.

The word "design" is used only when referring to an ornamental design made for some express purpose.

The distinction between the words "pattern" and "design" is not justified either by usage or dictionary definition, but is adopted herein merely for the sake of clearness.

The aim of this book is that all the children who are taught brushwork should be better equipped for fulfilling the duties and enjoying the pleasures of life.



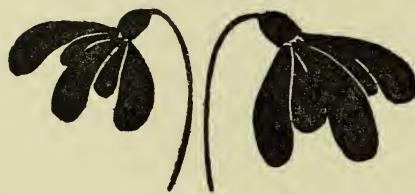


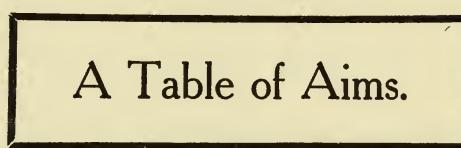
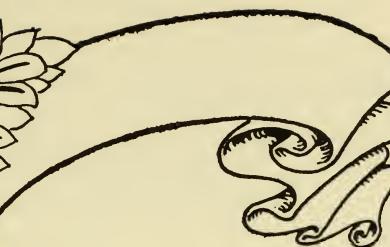
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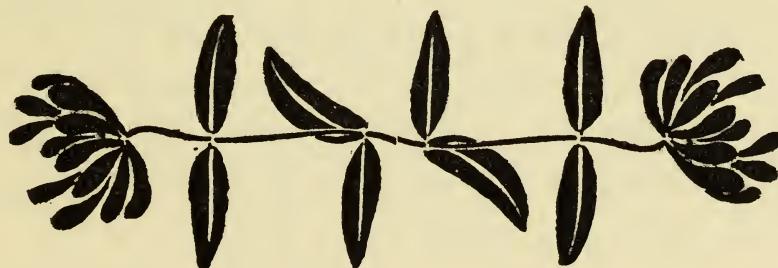




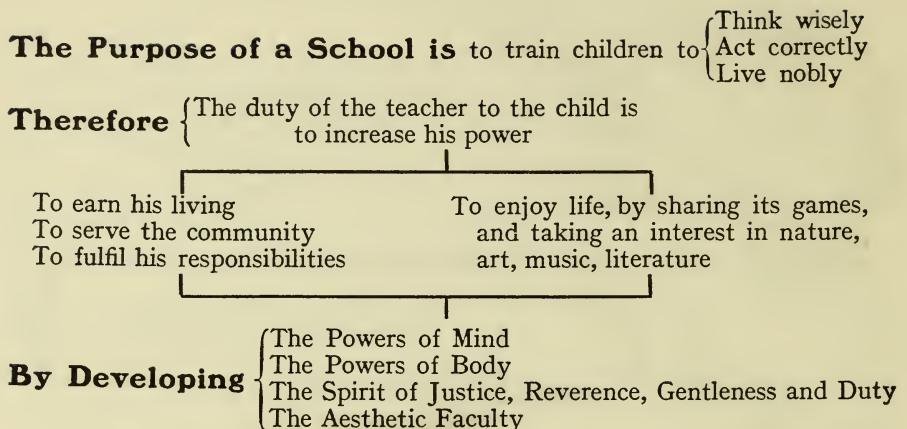
## A Table of Aims.

SINCE this table was prepared the Board of Education has issued a Blue Book, entitled "*Suggestions for the Consideration of Teachers,*" etc.

The introduction to that volume sets forth all that is tabulated in the following table, but as the application in that introduction is spread over all the subjects of the school curriculum, and is not applied directly to brushwork, it is inserted here, that this book, so far as it goes, may be self-contained.



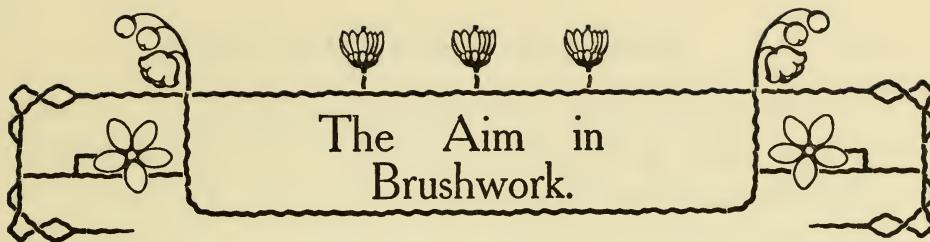
## A Table of Aims

**The Educative Effect of Systematized Drawing**

	<i>Diagrammatic</i>	<i>Mathematic</i>	<i>Aesthetic</i>
On Thought	Is expressed in line and mass ; by it knowledge may be unified	Is proved by line	Is amplified by colour, and imaginative thought is stimulated
On Action	Brain, hand, and eye are exercised, care and method are improved	Is made accurate, indelible, emphatic	Fineness, tenderness, truth, and interest are engendered
On Life	Care or carelessness, thought or thoughtlessness are exposed	Accuracy, method, and stability are stimulated	Rightness, balance, and joyfulness are encouraged

**The Teacher's Aim in Making Brushwork a Subject of Education is**

<b>TO ENCOURAGE</b> the scholar in accurate observation, individuality and resource	<b>TO EXERCISE</b> the scholar in connected thought, manual dexterity and the colour sense	<b>TO DEVELOP</b> in the scholar judgment, taste and power of expression in form and colour
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## CHAPTER I

*“In some schools the instruction in drawing is efficient and has led to good results; but in the greater number of schools much remains to be done to improve THE AIMS and methods of instruction in order that it shall become an integral part of the general education.”*

*Vide Instructions issued with the Drawing Syllabus.*

THE “*Official Suggestions to Teachers*” supplement this note very emphatically, both in the remarks directly applied to drawing, and in those indirectly referring to it under the heading of nature study, geography, etc.; they repeatedly urge that the aim of all drawing and brushwork is the definite expression of the scholar’s thought in line or mass.

The “*Official Suggestions*”  
and the Aim  
in Brush-  
work.

The following sentences taken from the Blue Book contain facts that should be borne in mind when a scheme of brushwork is under consideration:—

“*The purpose of the teacher must be clearly conceived and intelligently carried out.*

“*The establishment of character must always be one of the main objects of education.*

“*The good moral training that a school should give cannot be left to chance.*

“*It is the essence of teaching that the mind of the teacher should touch the mind of the pupil.*

**The Idea of  
Mastery.**

*“The value of any act of the teaching process lies, not in the intrinsic utility of the subject taught, nor in the trained or skilful application of the process itself, but in the way in which it calls into play the natural activities of the children and develops in them A SENSE OF THEIR POWERS AND OF THE ADDED MASTERY of these which each succeeding use secures.”*

These ideal aims are difficult to realize in connection with many school subjects, but brushwork is a subject particularly suitable for their development; owing to its attractiveness, the relations between teachers and scholars become closer, and many opportunities are afforded of inculcating indirectly higher aims and nobler thoughts.

In the endeavour to carry out these aims the following points must be observed. In order that the scholar may gain that facility and accuracy which will enable him to produce more perfect records of things accurately observed, a definite course of exercises is necessary.

It should also be recognized that facility must be obtained before accuracy can be attained. Again, no countenance must be given to inaccuracy. This is apparently a deadlock at the outset, and it is a point which must be rightly cleared up. The following sentence by Mr. Hammerton gives us a clear course in the matter:—

*“The graphic arts only become valuable as a part of education when they are pursued seriously as a discipline in accuracy of observation.”*

If the drawing show that the vital truth regarding the form and proportion of the object has been neglected, inaccuracy of observation may be inferred.

**Accuracy of  
Observation.**

Accuracy in drawing is only acquired by long and well directed practice, but truth of expression is often recognizable in very crude drawing. Accurate drawing is, indeed, impossible in the earlier stages of development; therefore it is an *increasing degree* of accuracy which we have to train the children to attain to. In other words, the observation must always be careful and accurate, and the representation should be as accurate as the skill of the scholar can make it.

Carefulness  
and Truth.

Neatness and finish are laudable, but must be kept entirely subsidiary to the main object, viz. to represent, as exactly as possible, objects accurately observed. The worst thing that can happen, both to teacher and scholar, is that there should be a smug satisfaction over carefully finished and neatly executed drawings that are not expressions of things observed and serve no useful purpose: brushwork should be practice in expression, and, when it becomes anything else, it fails to fulfil its office of becoming an integral part of the general education.

This, then, is the point to be remembered. Every child has the power, to a limited extent, of expressing truthfully, and in an orderly way, what he observes, and he should be called upon to express himself in line and mass to the extent of such power. As his powers develop greater accuracy will be acquired.

The Develop-  
ment of the  
Power of  
Expression by  
Expressing.

During the time that the scholar's powers of observation are being strengthened by means of the observation lessons, and while his faculty of expression in line and mass is being developed by suitable brushwork exercises, he must be allowed to reproduce to the best of his ability things seen, remembered and conceived. Thus he is, from the commencement, called upon *to do and to learn to do by doing*, which is fulfilling a great educa-

Thinking  
Wisely.

Acting  
Correctly.

Definiteness  
of Purpose.

tional aim and principle. If, at the same time, it has been impossible to achieve that accuracy of delineation which is the ultimate aim of the teacher, the scholar has, at any rate, in the meantime, been taught to observe accurately and to think wisely.

Accuracy of action is a most important force in brushwork. The brush is so constructed that in certain valuable exercises it automatically records obedient or disobedient action, and it is a tool that will not be denied its proper handling.

Some teachers regard exercises in brush strokes as a mere extension of the exercise known as "blobbing," and consider it expedient to omit these exercises, but if expediency enter into our calculation, we sacrifice our aim and lose the higher objects we have before us.

In some of the better courses of woodwork for schools they have a dictum : "We have to make men, not models." In a course of brushwork, let us have the dictum : "We have to make men, not drawings."

If it were possible to teach the whole art of water-colouring without these exercises, or others embodying the same principles, nothing would be gained ; for there is no use in the world for a totally disproportionate number of water-colour artists.

Without definiteness of purpose character-forming, which is the result to be aimed at, cannot be attained in connection with the teaching of brushwork. Unless definiteness of purpose is kept constantly in view, brushwork is practically devoid of training power ; the scholar should therefore be encouraged to be definite in every action, particularly in the early lessons, i.e. in the making of each individual stroke, in every addition of water to the pigment, or in the mixing of two or more colours.

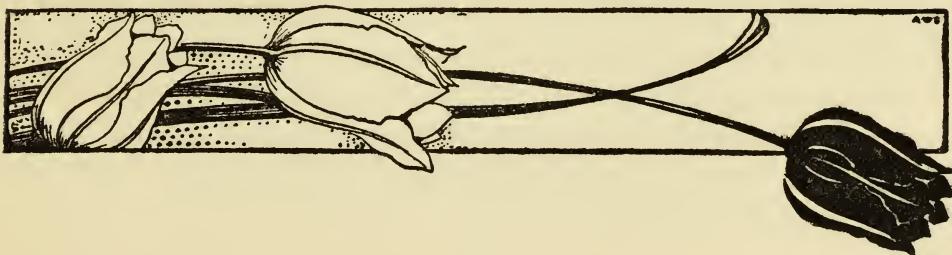
At this stage the child requires all the tenderness, coupled with firmness, that the teacher can give. A kindly watchfulness must be exercised, and an appeal to the honour of the child must be made when he makes his first stroke without a definite purpose, and, either haltingly or glibly, finds a reason for it afterwards.

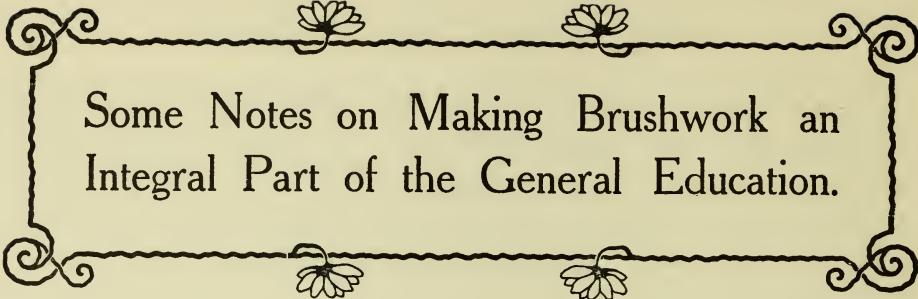
A child, who can sit opposite a row of ill-made brush forms, and resist the impulse to touch them up before the teacher comes round, has gained a victory ; how great or how small that victory may be we know not, but it has been a character-making process.

From the time allotted to each lesson, the first five to seven minutes only, after the material has been distributed, should be devoted to a strenuous effort to do a certain definite exercise in a certain definite way, the remainder of the time being devoted to expression demanding less strenuous work. The exercise practised in the earlier portion of the lesson should be selected with reference to the subject to be dealt with during the remainder of the lesson. The time for Technical study will have to be increased during the latter part of the Intermediate Stage.

The  
Forming of  
Character.

A Fixed  
Time for  
Strenuous  
Work.





## Some Notes on Making Brushwork an Integral Part of the General Education.

### CHAPTER II

AMID the great volume of printed and illustrated matter published to meet the directions of the circular on drawing, little provision appears to have been made to meet the requirement "that brushwork should form an integral part of general education." Whether or not this point is over emphasized in these pages is a matter commended to the thoughtful consideration of the reader.

The following note appears in *The Official Suggestions for the Consideration of Teachers* :—

"At the outset it should be borne in mind that drawing is just as natural to a child as speaking and writing, and ought to be as carefully treated.

"The power of understanding and using language is obviously necessary for those who are to know anything of what is going on in the world round them.

"In the same way the knowledge of drawing, or the power of perceiving and expressing the meaning of appearances, leads to a fuller understanding of the varied forms and colours around us."

Is this official expression of opinion merely academic, unworthy of the attention of practical persons or not? To come closer to the question—

(1) Are we to choose subjects for brushwork because they lend themselves to effective rendering ; or are we to take as subjects those things that require looking at, memorizing and understanding, and which present themselves in the course of the daily work in the school ?

(2) Is conventional draftsmanship the important feature of drawing and brushwork, or is the important feature the power of perceiving and expressing the appearance of objects ?

(3) Is the pupil in the early stages to express himself in line and mass as accurately as he is able concerning the things he sees, remembers, or conceives ; or is the drawing of objects to be reserved until a high degree of proficiency in drawing straight and curved lines is attained ?

While it is necessary to reserve on the time-table certain set times for drawing and brushwork, during which special attention is devoted to improving the manual dexterity of the pupil, at every oral lesson provision should be made that free-arm drawing, sketching, or the making of diagrams, may be practised, as advised in the "*Official Suggestions*" *concerning nature and observation lessons, geography, etc.* These diagrams, drawings, or sketches, should be kept and produced at the drawing lessons, and from this source, and this source alone, should the brush-work copies be selected.

Humanistic studies and natural science studies should equally have attention at the drawing hour. Some subjects are much more easily rendered with colour and brush than in outline. It is within the capacity of even the youngest children to make a silhouette of familiar objects : this, with the expression lines to be indicated by the teacher, will often make the observation,

The Time  
and the  
Subject.

Flowers  
not the  
Only Subject.

comparison and recollection of things more effective than an elaborate perspective or light and shade drawing.

**The  
Danger of  
Superficiality.**

Ornamental drawing and design are features in brushwork which have been altogether overdone, and far too much time and attention have been devoted to them: haphazard patterns and the happy combination of units, often obtained by chance, are frequently displayed as original designs, and a self-satisfied pupil is praised for what has cost him little thought in conception and small pains in execution, and this he and his school-fellows know, and a premium is thus put on haphazard methods. Character forming under these conditions cannot flourish.

Far too much unauthorized encouragement is given to this side of the work in many books on brushwork, until conventionalized nature has eclipsed natural form with all its beauty and simplicity. While pattern making is necessary in order to carry out a complete course of exercises in colour study for hand and eye training, an excessive amount of time is generally devoted to conventional brushwork. The dexterity required to produce symmetrical and balanced patterns is the most exacting exercise in manual skill that can be set to a child.

To require a child to conventionalize a plant before he has studied it—root, branch, leaf, flower and fruit—is a practice that calls for the grave consideration of the teacher before it is included in his scheme of education. To conventionalize and to simplify form are two distinct things: the conventionalized form of a flower may take the form of a silhouette, but a silhouette is not a conventionalized flower, and the more educative process is to take the simplest aspects of nature form and reproduce them as faithfully as possible.

**The  
Purpose of  
Pattern  
Making.**

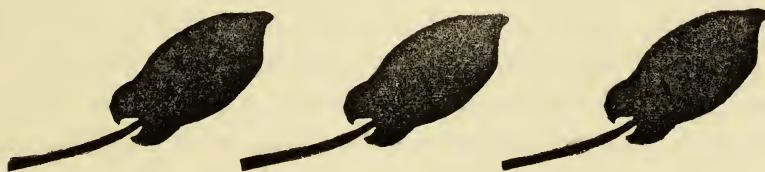
Mr. Hammerton, in his brief but valuable note on drawing in schools, writes :—

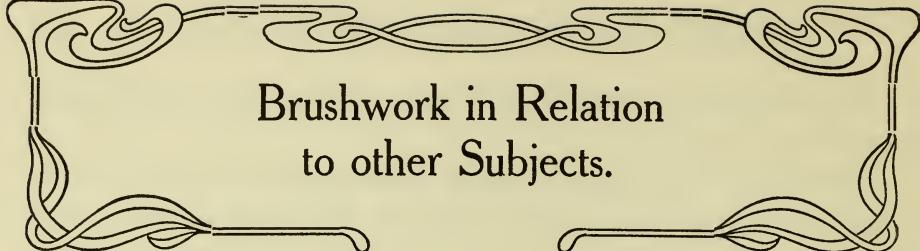
*“When the object of the master is to enable his pupils to seem ‘clever’ by producing a feeble imitation of art that displays consummate manual skill, his labour and theirs is equally vain and nugatory.”*

Mr. Ruskin says :—

*“I would rather teach drawing that my pupils may learn to love Nature, than teach the looking at Nature that they may learn to draw.”*

Brushwork as part of the school course is very valuable, but it has its dangers, and superficiality is not the least of them. It can hardly be denied that some scholars become so absorbed in their own work, and in the study of the copies and models put before them, that they can scarcely recognize nature's beauties.





## Brushwork in Relation to other Subjects.

### CHAPTER III

*“Art is only in her right place and office when she is subordinate to use ; her duty is always to teach, though to teach pleasantly ; she is shamed, not exalted when she has only graces to display, instead of truths, to declare.”*

JOHN RUSKIN.

The Value of  
Organized  
Colour  
Study.

THE value of organized colour study is a point that has escaped the notice of many teachers. To work for an indefinite period in sepia or monotone has its advantages, but it evades rather than faces the question whether the faculties of the children require colour. You can starve children into accepting monotone, but they are only starved children after all, and as soon as the monotone loses its novelty the scholar's pleasure in the work is at an end.

The art teaching, that preaches “go to nature” (with its beauty of which colour is so large a portion) and at the same time gives a scholar a plaster cast of a conventional rose to copy, is incomprehensible to a youth who wants to know colour.

What is the provision made for him ? An indefinite promise that, when he has completed certain tasks, which will probably not be before he leaves school, he may then be allowed to work in colour ; whereas, had definite colour study formed part of the drawing course, a foundation would have been laid that would enable him to fully appreciate the beauty of colour in art and nature, and he would not have left school only to find that his

## Brushwork in Relation to other Subjects 21

interest in drawing had departed, and under the impression that he had no artistic faculty.

If colour is to be used at all in school it should be used intelligently, not only so far as the primary and secondary colours are concerned, but beyond this limit.

Colour study should by no means be regarded as a subject added to the school work, but the use of colour should be so organized—by the gradual way in which it is introduced—that each scholar may know why he is using it. A simple and thoroughly practical course is suggested in Chapter XIX.

### BRUSHWORK AND ENGLISH COMPOSITION

It should be constantly kept in mind that in brushwork we have a subject the attractiveness of which appeals to both boys and girls, and no legitimate effort should be spared to make it a lever for the more careful and thoughtful study of all subjects correlated with it. By having the brushwork books interleaved with ruled paper, we not only get expressions in word and expressions in line and mass side by side, but also, where a carefully executed brush drawing is opposite a page of writing and composition, the children are anxious that the writing, spelling and English should be the best of which they are capable.

The brushwork time gives the teacher a valuable opportunity of enforcing the full meaning of many words that are often misapplied and others that are only partially understood, by interweaving them with the subject in hand and demonstrating by action and comparison. A list of words should be prepared for each class, and only one or two dealt with during each lesson; if well explained, there will be little need to refer to the same word a second time.

The  
Value of  
Interleaved  
Book.

Brushwork  
and  
Language  
Lessons.

It is also a suitable time for the explanation of many of the technicalities that occur in connection with brushwork itself, or with those subjects with which brushwork is correlated.

If nature study be the subject, the parts of a flower may be mentioned, and the part of the plant drawn may be numbered, and its name written at the foot of the sheet ; this repeated on several sheets proves of great assistance to the memory. Words incidentally explained are more easily remembered when they are associated with certain actions or even with colours.

#### BRUSHWORK AND MANUAL TRAINING

*“The hand and eye training should be continued in some form or other through the whole school course, and there should be no abrupt break between the kindergarten occupations of the infants and the manual training of the older scholars in woodwork or metal work.”*

Special reference is also made in the Drawing Circular to the fact that it is essential that the training of the hand should be specially provided for, and not left to chance.

The training in the larger movements having been cared for in the free-arm exercises, exercises involving the use of the wrist should follow in firm point drawing and modelling, and, under brushwork, exercises involving the movements of the fingers and wrist, and, later, movements of the fingers alone should be provided for. Exercises are required in these movements, not for a short time only, but during the whole school career. Sufficient practice is required in order that the arm, the hand and the fingers may come completely under the control of the mind ; the eye also needs practice in comparing

the relative size of things and their relations to each other. It is important to see that the exercises do not count for drawings and the drawings do not become mere exercises.

Although brushwork and modelling form part of the drawing course, there is no reason why they should not be regarded as manual training exercises ; indeed, if paper mounting in patterns and carton paper modelling are well done, the foregoing official suggestion may be regarded as satisfactorily carried out. The paper mounting is a suitable extension of the mosaic work, and the carton modelling follows the paper folding. The modelling and brushwork may be made to continue the work of the kindergarten. In the Kinopake scheme this transition, from colour study by the use of papers to colour study by the use of pigments, makes them dovetail so evenly together that the deplorable breach between the "Kindergarten" and the "Preliminary stage" ceases to exist.

In each stage brushwork should be so ordered that it will <sup>Neatness.</sup> encourage habits of neatness, and many helpful suggestions to this end will be found in the following pages.

It is by no means sufficient to make copies or studies look neat as a matter of afterthought, or to destroy certain studies that the work may present a good average ; probably no more effective way could be found of discouraging habits of neatness.

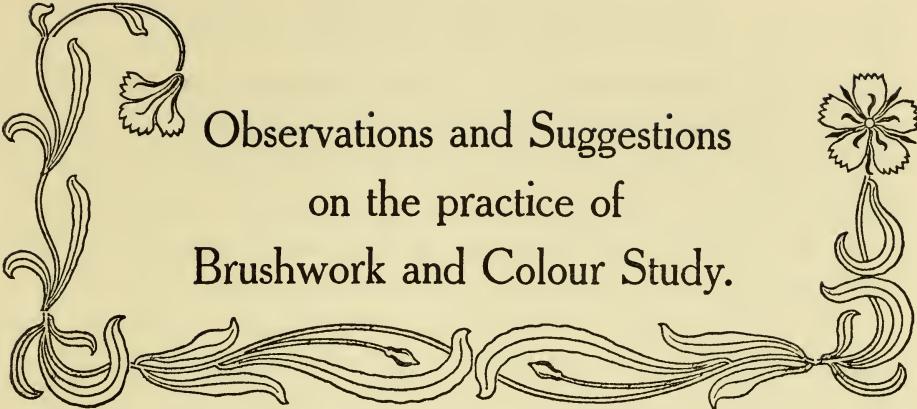
The work must be neatly done from the outset, and the material neatly kept ; the object of the work should be clearly conceived, and the purpose kept in view throughout. The paper should not only be of a suitable size and shape for the purpose, but it should also, in all cases, be prepared for the work in view, by having spaces or panels ruled, or made by

templates, or cardboards, as they are named, in the “*Suggestions to Teachers.*” When there is any spare space it may be divided up to receive exercises in brush forms, so arranged as to balance and pleasantly fill the paper. In this way the space is made for the subject and the subject drawn a suitable size for the space. After some experience in the work, the scholars should be called upon to exercise their judgment regarding this spacing.

No brushwork study should be considered complete without descriptive lettering. The lettering and the correct spacing of letters, which are so often regarded as of little importance, should be considered as important as pattern making. This exercise should lead to neatness in other directions. While nothing should be sacrificed to neatness, it should be remembered that the time spent on ensuring neat work is not sacrificed, it is profitably expended ; this remark applies equally to cleanliness.

**Cleanliness.** The average schoolboy is slow to recognize the difference between a thing being clean or only partially so, and he is still less concerned about the importance of the matter ; but if he is really keen about brushwork, he is soon convinced that the hands and wristbands must be scrupulously clean ; for, if the paper gets in any way soiled, the colour will not lay evenly, and the result will be patchy and unsatisfactory.

The aim of the foregoing suggestions is not to produce one or two scholars of exceptional skill at the expense of the remainder of the class. Children, who possess faculties for doing exceptional work, require no greater encouragement than that of being allowed to spend the allotted time in an occupation so congenial.



# Observations and Suggestions on the practice of Brushwork and Colour Study.

## CHAPTER IV

THE aim and theory of brushwork are subjects that, after *Forethought*, reasonable consideration, most teachers can agree upon ; but, regarding method and practice, it is seldom that any two persons are found to hold the same opinion respecting any set course. It is, therefore, essential that any Principal, who has decided to admit brushwork as part of the curriculum, should consider, firstly, how far circumstances will permit a complete course to be carried out ; and secondly, to what degree he can make it accord with the aims and theory he has set before him.

This subject is not one that can be settled term by term ; a scheme to be successful must broadly anticipate the work for three, six, or more terms. If, at the same time, an endeavour is made to forecast the changes that are likely to take place during that period, it will be at once apparent how entirely futile it is to expect to find any suitable course ready made. It is true that there are courses duly mapped out for the first year, second year, and so on, up to the sixth year's course, together

Suitable  
Schemes  
cannot be  
Purchased.

with copies for each period. If circumstances were alike in all schools, these prescribed courses would save the teachers much study and thought; but there is no royal road to success in brushwork any more than in any other subject. If the subject is to be made worth the time devoted to it, a special scheme must be devised to meet the requirements of each school.

The Educational Authorities of London, Glasgow and Leicester, may cry "Eureka," and produce work to all appearances satisfactory; but it is impossible that these courses can be suitable to the various needs of every individual school.

Brush drawing is a wide subject, but that is no reason why it should be treated in a vague manner, and the aim of these suggestions is not so much to build up a course, as to focus the subject.

It is proposed for this purpose to divide the period of school life into four stages:—

The Kindergarten stage.

The Preliminary stage.

The Intermediate stage.

The Advanced stage.

In many schools children arrive at the lower forms without having received any organized training in brushwork or colour study. As the result of experience the following table may prove helpful:—

If the Preliminary stage is commenced at the age of 8 years, 8 terms should be allowed for its completion.

If at the age of 9 years, 7 terms.

„	„	10	„	6	„
„	„	11	„	5	„

## The Practice of Brushwork and Colour Study 27

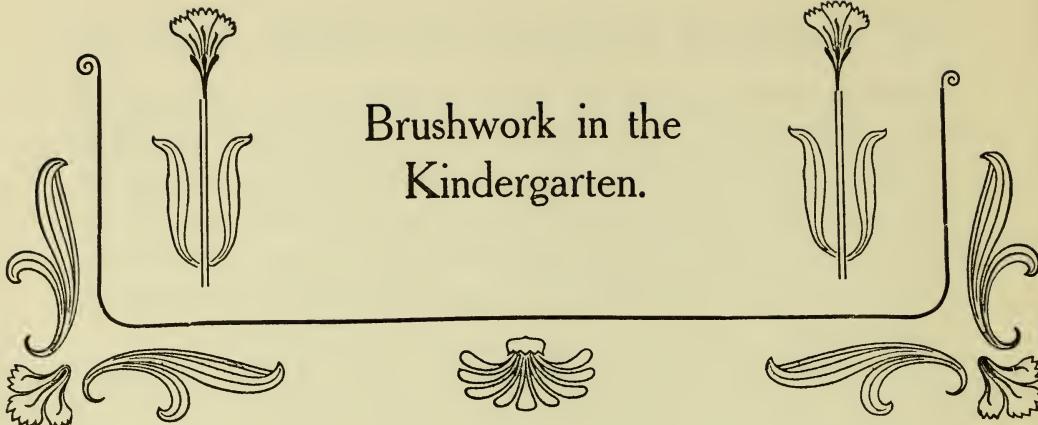
For general purposes, we may estimate that at the age of twelve the Intermediate stage would be reached; this stage should be prolonged to the utmost possible extent according to the circumstances of the school. It is, however, useless to ignore the fact that examinations and scholarships are the inevitable dictators of the curriculum, and that time for specialization is demanded.

No great advantage is gained by entering the advanced stage too early; the difference between the intermediate stage and the advanced is purely a matter of technique, and the transition may be left until three terms before the scholar leaves. It must not be overlooked that if the aim is to make brushwork an integral part of the education, there are many subjects in an examination syllabus that will be helped by both flexible and firm point drawing.

It is probable that drawing will take a more important position in the examination syllabuses of the future.

Advanced  
Brushwork  
Delayed.





## Brushwork in the Kindergarten.

### CHAPTER V

WHILE recognizing that organized play is the prominent feature of the Kindergarten, it should be borne in mind that the work of this important branch of our educational system is to lay a foundation. The brushwork of the Kindergarten shows an increasing tendency towards work of too ambitious a character. Some of the advanced studies usually taken in the upper classes are not difficult to render so far as brushwork itself is concerned, especially if practised from copies, but they are unsuitable for the Kindergarten on account of the advanced scientific nature of the subject ; there is a danger that the enthusiasm characteristic of the Kindergarten may make possible much that over-leaps what is valuable.

The promotion of thoroughness and clear understanding should be the great aim of the Kindergarten ; the pace should be “making haste slowly,” but modern infant school brushwork is not always characterized by these features. Generally the work would be much improved if a definite division were made

between the exercises and the expression lessons. In the expression lessons, freedom of thought and action would be assisted, if the scholars prepared the paper for each lesson by spacing it out, as shown by the illustrations that appear on the first page of the Supplement ; this result is obtained by drawing round templates, and is in itself a good kindergarten occupation ; by this means the straggling work usually seen would be avoided.

Brushwork as a kindergarten occupation is usually reserved for the last year's work, but the use of brushes and colour for tinting embroidery cards or lithographed outlines may very suitably precede actual brushwork. The subjects of the outlines should be associated with the guessing games or conversation lessons, and should be as simple as possible ; they should be coloured with diluted transparent colour. Scarlet lake, cobalt blue, gamboge, and green bice are suitable pigments ; each wash should be dry before another is added.

This tinting occupation may be followed by direct mass drawing with opaque colour from shadow silhouettes of very simple objects, preferably those that have been dealt with in the free-arm drawing lesson. This occupation is sometimes termed free brushwork, and should only be taken occasionally. The following make good subjects :—

Plums.	Candlestick.	Mistletoe.
Cherries.	Coal-pick.	Dominoes.
Berries.	Flag.	String of Beads.
Carrots.	Kite.	Gift I. Ball.
Pea-pods.	Bat.	Dumbbell.
Crocus.	Top.	Spoon.

In the Kindergarten first class, brushwork exercises may commence, but only the simple strokes should be attempted.

Pattern  
Making.

Work with  
the Brush  
may differ  
from  
Brushwork

Freedom of  
Choice in  
Arrangement  
of Units.

Colour  
Study.

Brushwork  
Considered  
as a  
Kindergarten  
Occupation.

During these exercises special attention should be given to spacing. Borders may be made by alternating dots in groups, or discs with simple brush forms ; in this way order and judgment may be cultivated. To extend this exercise templates should be used of two inch circles and two inch squares after the manner shown in Figure 6 and on page 32, but this exercise should only occupy a small portion of the time of each lesson. Space will not permit our giving details of complete lessons. This, however, has already been done most effectively in Miss Mackenzie's *Nature Programme*, and in Miss Dodd's *Nature Study and Fairy Tales*.

There is a natural desire for realism of colour in the Kindergarten, and, so far as circumstances permit, it should be encouraged by using colours as much like the object as possible. High lights may be pointed out and in simple cases added, shadows also may be indicated ; this does not mean that light and shade should be taught, but simply that the existence of these features should be recorded. In fact much may be done with brushwork in the Kindergarten that would be out of place in the Elementary Stage. Brushwork as a kindergarten occupation is as far apart from brushwork as a part of an organized drawing course as a Gift III. lesson is from solid geometry. Colour study will be found fully explained in another chapter.

Every effort should be made by the teacher to find the simplest aspect of the subjects chosen ; a good plan is to make shadow silhouettes of them as described on page 60.

The following list of suitable objects may be of assistance to those who are preparing a course of lessons :—

SPRING.	SUMMER.	AUTUMN.	WINTER.
Balsam.	Harebell.	Wheat.	Hips.
Crocus.	Grasses	Barley.	Haws.
Snowdrops.	Rushes.	Oats.	Holly.
Narcissus.	Wild Rose.	Cornflower.	Mistletoe.
Primrose.	Cherries.	Poppy.	Hammer.
Anemone.	Honeysuckle.	Seaside Objects.	Saw.
Beans.	Hawthorn.	Winged Seeds.	Screwdriver.
Bean Plant.	Pansy.	Leaves of Trees.	Chisel.
Tree Buds.	Marguerite.	Blackberries.	Bradawl.
Marsh Marigold.	Fern.	Pears.	Nuts.
Tadpoles.	Fern Growth.	Apples.	Shells.
Goldfish.	Caterpillars.	Bananas.	Oranges.
Celandine.	Butterflies.	Poppy-head.	Cotton-pod.

Copying from printed examples is a very poor substitute for experimental work, but the study of printed examples will help the teacher to recognize the simplest and most characteristic aspects of the object to be dealt with. It is necessary that the brushwork lessons should be thoroughly prepared, but it is not well for the work thus prepared to be thrust on the scholars, though a clear idea of the complete lesson must be in the mind of the teacher.

Preparation  
and its  
Value.

The method to adopt is that which encourages initiative and fearless effort, rather than that in which explicit directions have to be followed. This method cannot be put into force at the outset, as it is the outcome of ever improving organization aided by the enthusiastic effort of all concerned.

Freedom  
Under  
Guidance.

Many who read the list of subjects given above will find it difficult to understand how some of the things enumerated can be adequately represented in brushwork by the children in the Kindergarten.

The results attained are indeed astonishing, but emphasis

must be laid on this fact—whatever excellence Kindergarteners may aim at, they do not look for finished or detailed productions.

By spending a disproportionate amount of time on this occupation, and by persistent effort with a limited number of subjects, wonderfully finished brushwork may be, and too often is, obtained; but true kindergarten brushwork should be the expression of ideas called forth by, and developed in, the games, stories and observation lessons that precede it.

Many things, quite out of place in the upper school, may be profitably done in the Kindergarten: things may be chosen because they are pretty, or little landscape pictures may be made, and simple articles decorated.

Brushwork copybooks should be avoided, but brushwork exercise books interleaved with ruled paper may be used occasionally. Full particulars regarding the handling of material and the choice of exercises will be found under the chapters devoted to these subjects.

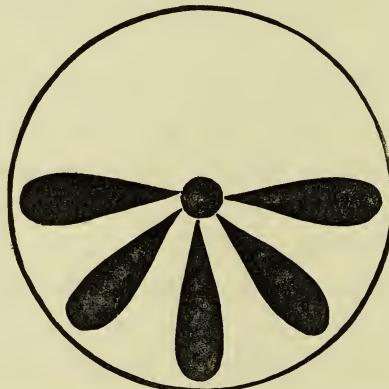
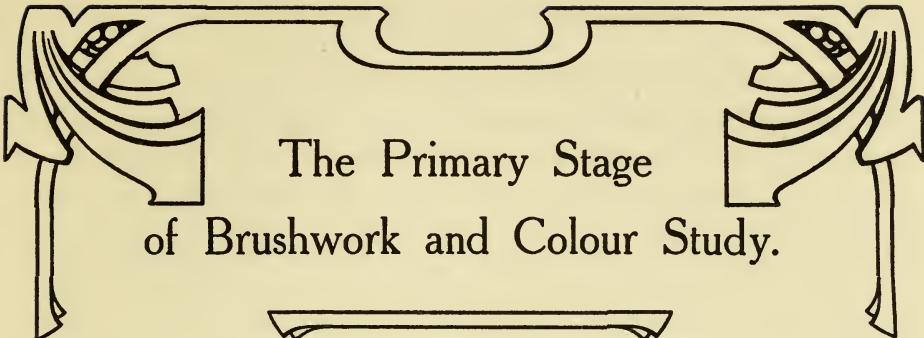


Fig. 6.—Brushwork Exercise in space made with a two inch circular template.



## The Primary Stage of Brushwork and Colour Study.

### CHAPTER VI

PROCEEDING from the known to the unknown is an educational principle acknowledged in theory and but too often ignored in practice ; how far the teacher of a lower form is acquainted with the programme of the Kindergarten is a point that might often be investigated to the advantage of the scholar. Co-ordination.

Brushwork and colour study form a valuable link between these two stages, more especially when a book has been used in which brushwork and sentence making have run side by side ; and this book should be preserved in order that the teacher in the primary class may see it. If a colour register has been started, it should be continued in the Primary Stage. The Advantage of Brushwork Books as Records.

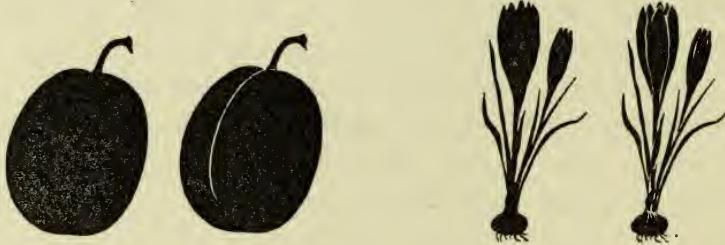
In the absence of such books every effort should be made to find out what brushwork lessons have been taken in the Kindergarten, not so much with the idea of entirely avoiding the subjects previously taken, as with that of making them subjects for further development or of forming a basis to work from. Previous Experience to form a Basis for Future Work.

In the Primary Stage children are capable of greater muscular control than are those in the Kindergarten, and they often have

a stronger desire to do the exercises in their own way. This is the time when the greatest watchfulness is required: the exercises, still commencing with the simple forms and proceeding to those more complex, should be done with unfailing regularity, and executed with all the precision the scholar is capable of.

Studies  
Life Size.

The power of connected thought and the children's ability of expression, develop so rapidly at this stage, that restraint exercised by the concentration of the work to a few subjects is often desirable. One way in which this can be arranged is by taking a plant and making coloured studies of all its parts. A plant should be chosen that can be conveniently dealt with, life size.



Mass  
Drawing.

During the third term of the Primary Stage a progressive course of mass drawing should be arranged. In this stage complete silhouettes should be made of simple objects. When an exercise has been completed satisfactorily, the value of expression lines in relation thereto may be gradually taught: the economy of expression lines is the secret of success in mass drawing.

Many teachers will require the help of printed studies, and those published for the Kinopake course were specially drawn for this purpose.

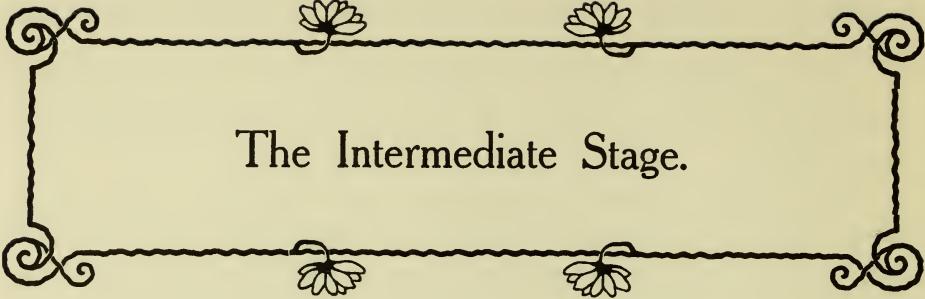
## Primary Stage of Brushwork and Colour Study 35

Mass drawing should alternate with other work. Some examples of mass drawing are given in the supplement to this book.

As at this period modelling and free-arm and free-hand drawing necessarily occupy at least two-thirds of the whole time devoted to drawing, and, as owing to the nature of brushwork, progress in it can be much more rapid than that in any of the other forms of drawing, care must be taken that the scholars are restrained, or the drawing direct from the object will suffer.

Other details regarding the conduct of the work for this stage will be found in Chapters XII. to XV.





## The Intermediate Stage.

*“All men completely organized, and justly tempered, enjoy colour ; it is meant for the perpetual comfort and delight of the human heart.”*

JOHN RUSKIN.

### CHAPTER VII

THE principal difficulty before the teacher at this stage is that of selecting studies, of equal value for developing the technique of brush drawing, and for illustrating the current lessons in other subjects.

Little is gained by correlating for the sake of correlation, and at this stage the whole of every second brushwork lesson should be devoted to studies in technique.

The scholars drafted into this division should be, to a great extent, the masters of elementary form and colour. Their attention should now be directed not only to the close observation of the subject and its environment, but also to making careful representation of its light and shade ; it is not that this feature should be overlooked in the earlier stages, but that here it should be systematically taught.

The scholars should be provided with a selection of small “type models” ; those on a two-inch basis will be found suit-

able, and should include the cube, the square and triangular prisms, and the square and triangular pyramids. Where cardboard modelling is taken it will be much better for the scholars to make their own models, but for the guidance of teachers a graded series of geometric drawings has been prepared and published under the title of the *Kinotranspare Geometric Studies*. These studies are typical of the exercises that should be taken in drawing direct from the models, and their object is to assist the scholar to see light and shade in nature.

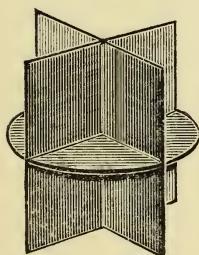
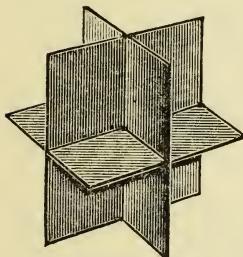
For these exercises outline drawings should be made freehand and then transferred to water-colour paper.

A good quality paper is required for the above purpose, and as the size of the studies is only 6 inches  $\times$  5 inches, smooth Whatman paper might be used without much expense ; failing this, K.O. thick white water-colour paper may be used.

For colouring, a thin wash of any Kinotranspare colour may be used (all pigments chosen for the course should be used in turn). With this thin wash all the space within the outlines should be tinted. The scholar should now look keenly at his group of models and observe the half-tones and the shades. (The

Method of  
Colouring  
Outlines.

light should be arranged as well as it can be to facilitate this.) A stronger wash of the same colour may now be prepared, and with it both the shade and half-tone should be covered. When this is dry a still stronger wash is made with which the shade



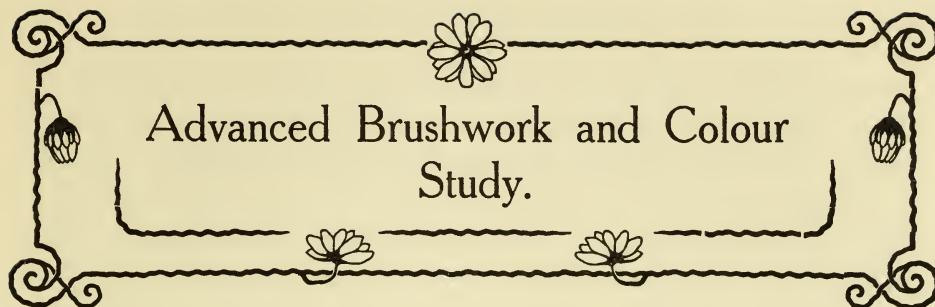
only is covered ; to prevent the colour running to the foot of the drawing, the board should be reversed from time to time.

The preceding exercises deal with monotone ; but a more advanced stage deals with more than one colour ; for this purpose an axiala of the cube (as illustration) should be made in cardboard of two colours. An outline drawing of the axiala should be made and coloured to represent the model, the lights and shades being treated in a similar manner to that recommended for the type models. It will be seen that the exercises on the type models treat of light and shade in connection with monotone, while those on the axiala treat of light and shade in connection with two or more colours.

In drawing from nature the tones of the shades and shadows should be accurately carried out and conventional representations of them discarded.

Gradation of shade is mentioned under "Advanced Brush-work," but may be introduced before that stage is reached, if circumstances permit.





## CHAPTER VIII

AT this stage two points are prominently brought before the scholar—surface treatment and design.

Surface treatment should be preceded by careful lessons in the gradation of shade and colour, and a good many exercises should be taken in making colour keys. Every scholar should have a well-made colour key of each pigment in his box and also a good range of keys of colour combinations. These should be carefully kept, in a similar manner to the register of opaque colour, to serve for the comparison of colour blends with the colours in nature forms.

A colour key is a long band of colour shaded from the full strength at one end to the palest possible wash at the other. Although the process of making these keys is pretty well known, it is seldom carried out in a thorough manner.

A suitable method is as follows:—take a sheet of water-colour paper, 15 in.  $\times$  10 in., and rule it off in bands two and a half inches wide divided by one inch spaces. The paper having been damped and stretched should then be pinned on a board, or over a framed canvas. Before laying the colour redamp the surface and partially dry it with blotting paper. Place

in an ordinary saucer a quarter of an inch of any Kinotranspare colour, and to this add two teaspoonfuls of water. With a No. 6 brush well stir this and lay a trough of colour three-quarters of an inch deep across the upper portion of the extreme left-hand band; then rapidly stir into the colour another teaspoonful (or rather less) of water, overlay the first trough of colour by half an inch, and draw the colour down an inch; add another teaspoonful of water to the colour and cover a further inch, and proceed in this way until the colour is of the lightest possible tint. The other columns of the paper should be filled with similar keys of other colours. The drawing board should slope during this lesson.

Experiments in blending colours can be made on similar lines. In this case two saucers must be used, one containing strong colour to be diluted, and one weak colour to which raw colour may be added. The strong colour is dealt with in the same method as the colour keys. While the colour is wet the pale colour of the second shade is overlaid and carried to the opposite end, gradually increasing the strength. The results of this process are fully shown in the "Arts and Crafts Advanced Studies," each stage of the work being shown separately: first the flat tint, then the half-tone, and then the full colour.

Surface treatment—or the technique of representing various textures such as cloth, fur, hair, stone or foliage—is a study that develops the closest observation, and no opportunity should be lost of showing the student how this has been accomplished in the works of good artists. Many printed studies may be examined with advantage, but the work should be executed from memory of method and not copied. Written descriptions of

methods of rendering these surfaces are of little value. Much, however, may be gained by working out the suggestions in Professor Ruskin's *Elements of Drawing*, and by studying its pages carefully.

Of design much has been said in other chapters ; the main difficulty is to get the scholars at each lesson to make a fresh initial effort.

It is advisable to require balanced in preference to symmetrical designs, and before natural forms are introduced the scholars should make a skeleton of flowing lines that they *like*, suitable to the space they *desire* to ornament. (Like and desire are two important words in this sentence.)

*“One may do whate'er one likes  
In art—the only thing is to make sure  
That one does like it, which take pains to know.”*

The flowing lines of the skeleton are more easily arranged if they are first drawn free-arm on a large board, or on brown paper, and reduced to the size of the space required. In clothing these lines much restraint must be exercised. Every line superfluous detracts from the beauty of the form.

If the lines forming the basis or plan of the ornament do not please, they will fail to satisfy, or to express the meaning or feeling of the student, however tastefully they are clothed.

Time spent in examining good work is time well spent ; but time spent in making variations of printed patterns is likely to render a scholar for ever incapable of making a good design. It is essential that scholars shall have an interest in the subjects they propose to decorate, and, as there are books on

most subjects, book covers, title pages and end papers, are well adapted for early efforts in design.

Patterns for embroidery, and appliquéd designs for special articles or rooms will interest and stimulate the ideas of most girls. Designs for badges, symbols and banners for clubs and societies provide a good field for the expression of ideas. These designs should truly express the aim of the society or institution.

To express an idea is the first aim in designing, the higher aim is to express a truth. This may be considered as beyond children of fourteen or fifteen, but is it wise to give children no credit for having higher aims and feelings? They may fail to express these clearly, yet "catching at mistake as midway help," as Browning puts it, "shall reach fact indeed":—

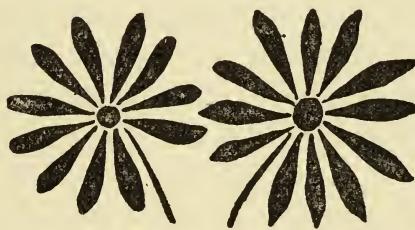
*"God's gift was that man should conceive of truth,  
And yearn to gain it, catching at mistake  
As midway help, till he reach fact indeed.  
The statuary, ere he mould a shape  
Boasts a like gift, the shape's idea, and next  
The aspiration to produce the same :  
So taking clay, he calls his shape thereout—  
Cries ever, 'Now I have the thing I see,'  
Yet all the while goes changing what was wrought  
From falsehood like to truth, to truth itself."*

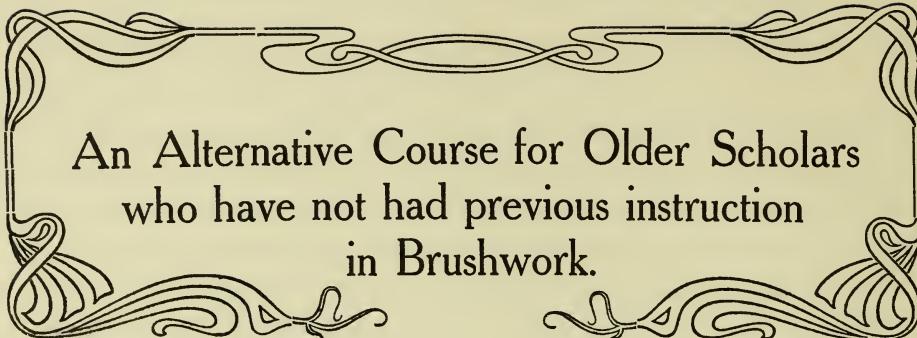
Unless the aim in design is a worthy one, the less time spent in producing designs the better.

In pattern making the principles of ornament may be taught, but to create designs on handbook principles is hardly possible.

Noble design springs from noble thought, and would, if it

not be better to omit altogether the study of design rather than to foster the production of ignoble design with its consequent weakening of character? In school, as well as in the world, the demand often creates the supply. The explanations and directions on this point in Professor Ruskin's *Elements of Drawing*, and in his book *Two Paths*, will be of the greatest assistance to the teacher; and the directions given therein for the practice of surface treatment are simple and effective. Cheap editions of both books are now obtainable. Mr. Walter Crane's two books, *Line and Form* and *The Basis of Design*, should be in the library of every school where advanced brushwork is taught. To repeat his directions here would not be right, to give other directions would probably be misleading. The silhouette studies of Mr. W. R. Bullmore, "Educational Arts and Crafts," series, are exceptionally valuable.





## An Alternative Course for Older Scholars who have not had previous instruction in Brushwork.

### CHAPTER IX

IT frequently occurs, especially in girls' schools, that a course of colour work is required in the advanced classes where brush-work has not been previously taught.

The method of work to meet such a case differs very considerably from the one suggested for a course that includes brush-work in all classes. The theory of opaque colour must be more directly taught by the teacher, and only a few lessons given in it, compared with the number given on transparent colour. This method is a poor substitute for such a training as is given by the full course, but much may be done if the examples be well chosen and time be not wasted in immature amateur painting.

When the first principles of colour have been brought before the notice of the scholars, practical experiments in blending opaque colour should be made, followed by similar exercises on paper of various shades. This paper should be prepared by

Work in the  
Advanced  
Classes where  
Brushwork  
has not  
previously  
been taken.

the scholars with geometric patterns, ruled or drawn free-hand with an alabaster pencil.

After not less than six lessons have been devoted to exercises in opaque colour, flat tinting should be introduced and continued in various forms. The early lessons should be carried out with very thin colour washes, the colour being gradually strengthened in the lessons that follow.

The Order of Work for a Short Course.

Patterns made with interlaced bands and borders of geometric form should be outlined, and used for a progressive course of colouring, commencing with harmonies in one colour and gradually developing into more complex combinations.

The ruler drawing and straight line geometric pattern work may be followed by compass work, as indicated in Fig. 40. The space covered by this geometric work should not be large. For most patterns 8 in. by 6 in. will be ample. Geometric bands may vary from  $\frac{3}{16}$  of an inch to  $\frac{3}{8}$  of an inch wide. Corners should be made at the same time as borders.

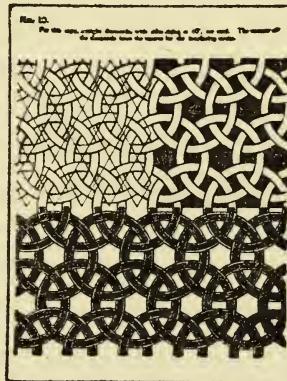


FIG. 40.

The arrangement of colour in these diagrams being left to the scholars, it is important that they should express their preference for the studies they like, and try to explain why they like them.

These lessons should be interspersed with lessons devoted to making colour keys. When a mastery of handling colour washes has been gained, and scholars are able to run colour evenly be-

When Brush Form follows Flat Tinting.

tween lines, another step may be taken. This should consist of making brush forms ; a selection should be made from the list given on pages 67 to 75, etc. These forms may be executed in opaque colour or strong washes of transparent colour, and the panels already made in the flat wash lessons may be decorated; but this is recommended more with the idea of making the best use of the material and gaining facility, than with that of making patterns.

When the work shows satisfactory progress, simplified flower forms, such as those indicated in the *Arts and Crafts Colour Studies* (Part I.), may be chosen, and when the scholars are able to make outline drawings from an object, the three-grade studies shown in the advanced *Arts and Crafts Studies* may be taken. It will be noticed that for this brief course correlation of brushwork with other studies except colour has been frankly abandoned. Nevertheless books interleaved with ruled paper should be used and notes should be made respecting colour and also of the general information received during the lesson recorded ; practice in making large or ornamental capital letters should be taken from time to time. The aim of this brief course is to accomplish that which would be learnt incidentally when a full course of brushwork is taken. The object of this course (beyond teaching neatness, dexterity, carefulness and order) is to develop the scholars' appreciation of, and enjoyment of, form and colour in works of art, and also to direct their eyes and thoughts to the beautiful colours and contours in nature, and, where possible, to help the scholars to determine why they prefer certain colour-combinations and forms of beauty. Therefore it is more than ever

important that no opportunity should be lost of seeing nature at its best, and of examining, with thoughtful study, works of art or good reproductions of them.

Any teacher, who feels unequal to this task, will find great assistance from reading the first three chapters of *Modern Painters*.

The equipment for this course will differ greatly from the equipment chosen for the full course (see page 84). Each scholar must be provided with a water-well, a flat-wash saucer (see Fig. 302<sup>a</sup>) and a tinting-tile (see Fig. 309). Each scholar should possess two brushes, a No. 6 and a No. 3 Perfect Point, or, better still, brushes of the same size in quills.

The Equipment for a Brief Course.

For the experiments and work in opaque colour, the tinting tiles should be used ; in the round wells at the head of the tile half an inch of each of the three tones should be put, and blends made from them worked out on the slants.

For the lessons in flat-wash laying the saucers should be used. These can be distributed to the scholars with a small piece of solid colour in them, and the scholars should thoroughly mix this with water from their water-wells. For the geometric pattern work with transparent colours the tile will be again required. The wells of this tile should in this case be supplied with "Arts and Crafts Colours." These colours are identical with those recommended by Mr. Ruskin to his students. The variety is limited to twelve, with the addition of Chinese white (which should be used as sparingly as possible), but this selection

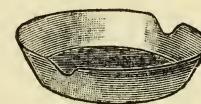


FIG. 302<sup>a</sup>.

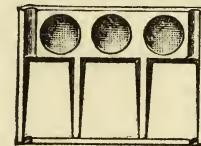


FIG. 309.

will amply meet every requirement of the scholar. These colours are put up in jars, so that, after a lesson, the unused colour can be easily removed with a palette-knife and put back into the jar; you cannot put colour back into tubes. As this brief course only admits of a limited number of lessons the colour should be frequently altered.

This course should include exercises in drawing from nature with the view of memorizing nature forms, so that the scholars shall be able to identify common nature forms such as leaves, grasses, etc.

Reproduced from  
Part II. Memory  
Drawing of  
Plant Form,  
by Mr. W. R.  
Bullmore.





## Decorative Brushwork.

### CHAPTER X

DECORATIVE brushwork should have a definite place in any scheme of educational handwork. In the foregoing chapters it has been intentionally kept in the background, because at present it is pursued to such an extent on conventional lines as to obscure the real aim of brushwork, and to stultify the most useful of its functions.

Pseudo-  
Decoration  
and Modern  
Brushwork.

In defence of this excessive attention to conventional design, it is pleaded that it exercises the inventive powers, and allows scope for individual effort. This should be the effect, but the marked resemblance of most of the work, done under these conditions, to the copies of the day, discourages the idea that the methods adopted are sufficiently successful to justify the time and material expended on them.

The fact is brushwork too often commences at the wrong end. Leaves, flowers and fruit—by the study of which the scholar may gain a knowledge of, and take an interest in, the complete plant—are often regarded simply as units of pattern. Until beauty of structure, curvature and colour are perceived with appreciation and enthusiasm, all so-called original design is merely a recorded variation of pattern.

Perception  
of Beauty  
in Nature  
must Precede  
the Production  
of Beauty in  
Art.

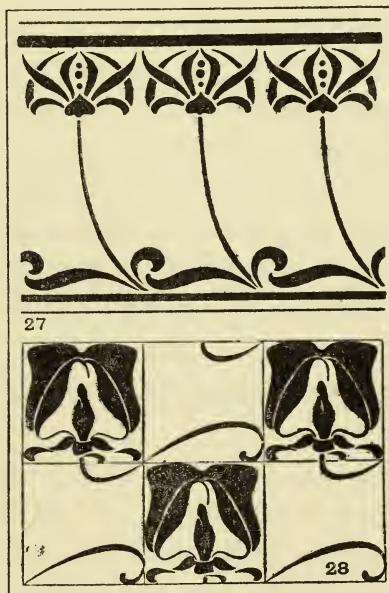
It is out of the fulness of knowledge of natural form, and from the consciousness of ability to express some of its beauty, that all good, true and beautiful design must spring ; simplicity is its keynote, and under wise direction, no stage of life is more favourable to the production of fresh design than youth.

Ornament that is worthy of the name of design is Fine Art, and “fine art is that in which the hand, the head and the heart of man go together.” The attitude of the scholar should be one of seeking for knowledge of form in nature, and of endeavouring to understand its exposition in art, in order that he may see, appreciate and enjoy its beauties, and possibly participate in the work of making some things beautiful which before were dull and uninteresting.

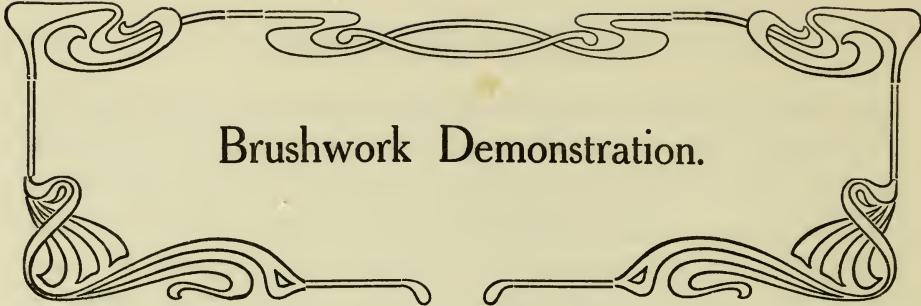
Scholars should from the outset be encouraged to follow and develop their own ideas in pattern making, but it will be better to reserve the title of design, for any work that is fitted in form, colour and character for a particular purpose. Beauty is the first essential of design, but a good design out of relation to and out of harmony with its environment is not beautiful.

When the Advanced Stage of brushwork is reached it is suggested that the scholars should be called upon to make designs : the purpose of each design should be stated, and the space and conditions connected therewith, together with the scale, should be written by the scholar on the margin of the paper used for the work. When designs for book covers, or other subjects embracing lettering, are chosen, the title or wording should be given in full, and the nature of the material that the design is intended to be worked on should be stated.

To enable a scholar to appreciate and enjoy the best work in art is one of the aims before us. Without practice in artistic pursuits it is nearly impossible to take a really intelligent interest in art ; that a scholar should learn the fitness and suitability of applied ornament is a need of the times, and to know the worthlessness of garish, so-called, ornament is a matter of importance in household economy.



From Part II. "Copies in Silhouette."  
W. R. Bullmore.



## Brushwork Demonstration.

### CHAPTER XI

BRUSHWORK demonstration carried out in the orthodox way presents great difficulties to all except the most expert teachers.

It is traditional (for the sake of preserving order) for a teacher to take up a position in front of a class where he can keep an eye on every scholar. This means, in most cases, that he must demonstrate brushwork in the same way as he would conduct a lesson in firm point drawing. This method, which is regarded by many as having no alternative, fails in the following particulars :—

*The method of holding the brush, and the movements, which are such important features in brushwork, are not demonstrated, for, in wielding the brush on surfaces nearly vertical, actions are required that in no way resemble the movements required of a scholar who is sitting at a desk ; again, there is very little resemblance between the action in using a large brush free-arm and a small brush free-hand. The scholars are not able to see how a result is obtained, because the teacher's hand necessarily hides the lower portions of the brush from their view. The process*

Two Dis-  
advantages of  
Demonstrat-  
ing on an  
Upright  
Board.

therefore is to the scholar rather a matter for conjecture, than a demonstration from which he could gain any assistance.

These differences of method are matters of consequence to the pupil. The quick scholar, when he sees a certain effect produced with a large brush, unconsciously argues that the conditions under which he is working are not the same as those under which the teacher is demonstrating ; the result is that he pays little heed to what is being said or shown. Scholars who are less quick will puzzle over the matter for some time, and finally come to the conclusion that the diagram is merely a copy, and that the process of producing it is of little consequence. On the whole, it may be argued that the scholars who learn to do brushwork properly must learn to do it in spite of this method of demonstration, rather than by its assistance.

The Effect of  
Inefficient  
Demonstra-  
tion on the  
Scholar.

Notwithstanding this, it is highly probable that teachers will be required to show their ability in demonstration on a vertical surface, in order to obtain a teaching certificate. For this reason the following suggestions are given. On no occasion work directly on to the blackboard : the difficulty is great, and the result misleading ; an average blackboard will make the best work appear unsatisfactory. Even for purely linear work the negative-like appearance of a white line on a blackboard is a disadvantage, but, with colour, crude results painful to the eye are inevitable. Demonstration paper should always be used, and the teacher should choose the same tones, both of paper and colours, that the scholar is using.

When working with harmonies of colour, where the contrast between the higher and lower shades is not sufficiently

great for the scholars to see such contrasts from the distance, simply exaggerate them and explain the reason for so doing.

Opaque  
Colour  
Required for  
Demonstra-  
tion.

For demonstration work on the vertical surface opaque colour is necessary. It should be thoroughly mixed to about the consistency of house-painters' paint. Much care must be taken to see that the brush is not overcharged with colour, or it will run down; a piece of blotting-paper should be always at hand to remove any surplus colour. The choice of a brush must be left to the teacher, but the safest brush to purchase is a "Teacher's Flexile Siberian"; in any event much practice will be required before any work can be done in a satisfactory way, and the larger the brush the greater will be the difficulty in using it.

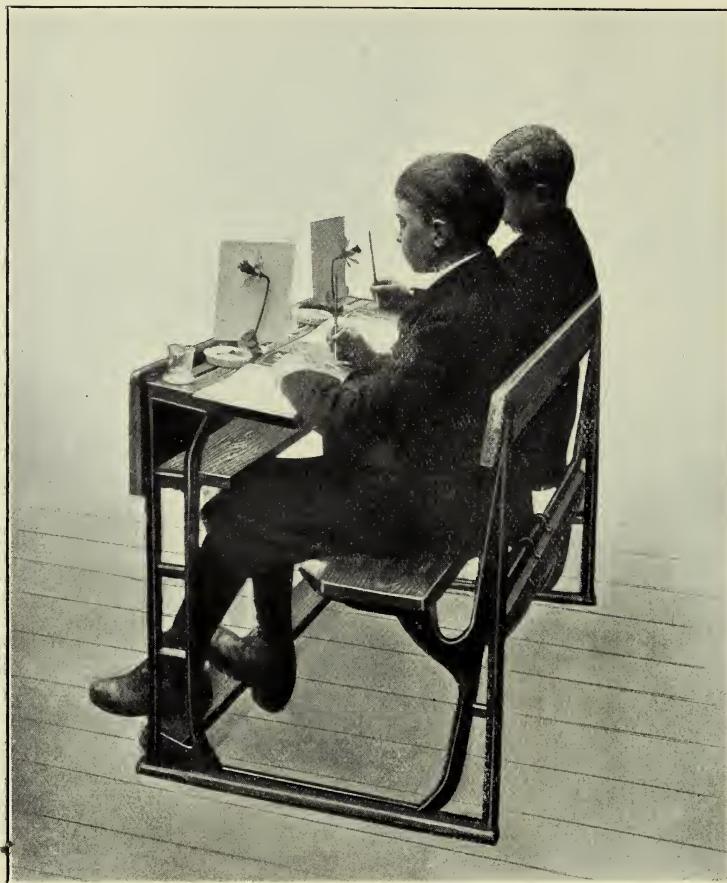
An Alterna-  
tive Method  
of Demon-  
strating.

A better way of demonstrating a lesson is to use an ordinary drawing-board, about 22 in. by 15 in., with several sheets of paper clipped on to it at the four corners. This is carried to the front of the class, placed low down in a horizontal or slightly inclined position, and arranged in such a way that eighteen or twenty pupils get a good view of it. The first eighteen or twenty scholars having been set to work, the table or stool with the board on it can be removed to the front of a second set of scholars, who in the meantime have, of course, been finishing or repeating the work done at a previous lesson. The brush used should be a "Teacher's Flexile Siberian."

There is comparatively little technique which a teacher can demonstrate to the scholars, and for the most part only essential movements and new exercises should be shown; it is very easy to do too much for the scholar.

In the illustration of the two boys at work (see frontispiece) it will be noticed that the boy in the foreground is holding his





CORRECT AND INCORRECT METHODS OF HOLDING THE BRUSH.

[See page 55.]

brush (as he probably holds his pen) in a way that is entirely wrong ; his thumb is so much bent that it is evident that he is gripping the brush far too tightly. The second boy is holding his brush in the right manner, that is to say lightly, yet under perfect control. Many demonstrations will have to be given before a whole class are persuaded to hold the brush in the right way.

It will assist the teacher very much if, before practising the demonstration with a large brush, he masters the subject with a No. 5 brush. When a demonstration has been given, it is better if the result be not put up before the scholars. If the same subject has to be demonstrated several times, slight alterations can be introduced to emphasize points. If this method of demonstration is adopted, no difficulties of any consequence will arise. The words in the directions to teachers issued with the Government Syllabus are laconic, but they meet the case exactly : "*Teachers should be encouraged to teach what they know and can do.*"

The first thing teachers should do, who have had little previous experience, is to analyse carefully the knowledge they possess, and then try the simpler exercises. Nearly every one is astonished at the rapid progress scholars make, and it is very seldom that a teacher who seriously takes up this work finds any difficulty in brushwork execution. It is, however, a very real difficulty to be able to find a simple way of representing a simple object. Experiments with the shadow silhouette will be of great assistance, and the Supplement to this book should be of some help to the teacher ; but little can be done until the teacher has gained confidence in himself

by doing what he can do. All the talk about having no gift for work of this character has been disproved so often that no serious person will entertain the idea. One might as well say he has no gift for gardening or cycling.

Nothing can be simpler or better suited for initial practice than the first brushwork page of the Government Syllabus. Further examples, carefully graded, are given in the "*Kinopake Complete Brushwork Course.*" It is of no use being disappointed because the hand work does not look like the printed example. Whatever pains are taken by the printer, the impression from a wood block cannot be made so as to be mistaken for a brush stroke, and a brush stroke cannot be made to look like the impression of a wood block.

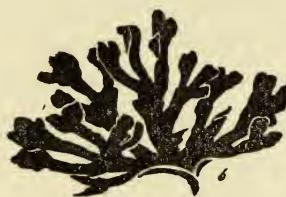
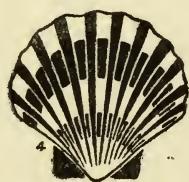
**Printed Forms not to be compared with Brush-made.**

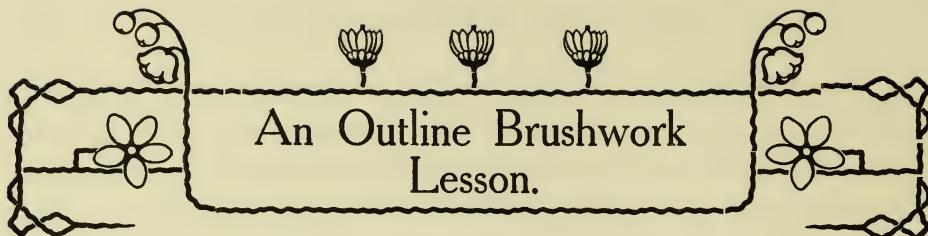
**Freedom in Handling the Brush.**

Much that is misleading has been recently said about freedom, but it should be clearly understood that all rapid dashes and uncontrolled strokes with the brush, even if they result in pretty looking forms, are distinctly bad. The brush should move slowly over the paper, and the hand should be under such control, that it can produce varying degrees of pressure, or can be stopped, or the direction of the stroke can be varied at will. A perfect master of the brush can do this rapidly, and in some cases (but not often) the work is better for such rapidity. Nothing misleads scholars more than a display of rapid brush strokes.

In addition to the demonstration of the use of the brush, much may be done with chalk on the blackboard to illustrate various methods of expression. As a rule printed diagrams should be avoided, and in those cases where they are used the diagram should be utilized only to point out a method; in no case should it be used as a copy.

To demonstrate the earlier stages of brushwork is not difficult for any teacher, and until he is beaten in progress by his class there is no need for him to anticipate difficulties ; even then his training as a teacher should help him to conduct the class satisfactorily.





## CHAPTER XII

*“ Note taking is of doubtful advantage, because scholars of the age of ten to fourteen will not have mastered the art of taking notes, and notes dictated by the teacher and copied on the blackboard do not represent any independent effort on the part of the scholars. Notes should be made in the form of sketches whenever possible. . . . A sketch with a few written labels and recorded measurements forms an excellent summary of a lesson. . . . Care, however, must be taken not to overdo the drawing so as to make the nature study a lesson in pencil or brushwork.”—Vide “Official Suggestions.”*

To illustrate the principles laid down in the foregoing chapters an outline lesson is here given. The cereals have been selected as being one of the best subjects to take as an example.

Wheat, barley, oats and rye grass may occupy a series of separate lessons during July, being treated subsequently in one group, as shown on page 7 of the Supplement. The lesson can be made suitable for the advanced Kindergarten or the early Primary Stage.

The brushwork should be preceded by observation lessons and by studies of each separate item drawn free-arm on art paper.

In the observation lesson very little information should be volunteered by the teacher, and little allusion made to botanical terms.

During such lessons the points of resemblance may be first dealt with, then the points of contrast. To emphasize these points, rushes and twigs may be introduced—not added to the lesson in a way that would make it more complex, but used merely to illustrate simple facts such as, among other things, the difference between a solid stem and a hollow one. In an advanced class more may be attempted, and simple experiments carried out to illustrate the strength of a hollow tube, to find the knot in the stem of a plant, or to show the principle of an unwinding leaf. Measurements should be taken, such as the distance from knot to knot and the length of the leaf. Comparisons having been made of these measurements, record sketches should also be made of them.

It is of little consequence how crude the sketches are that are made during the observation lessons; they should be on a large scale, and should be kept until the brushwork lesson is taken, when they will remind scholars of the points they should keep in view.

A separate mass study of each detail should be made in one colour, either full size or a little larger, and in addition a mass study of the complete object. Later on the question of the arrangement of them can be decided on. To this end the paper chosen should be divided up with templates, as indicated in the illustration on the first page of the Supplement, so that the important items may be arranged in an orderly and pleasing manner.

The materials required during the lessons are an alabaster pencil, and some sheets of the Kinopake neutral paper 10 inches by  $8\frac{1}{2}$  inches. If the sketches are made lightly, the paper can be

readily cleaned with a felt cleaner when the lesson is complete. For the brushwork a No. 5 brush should be used, and the following pigments should be put in each three division palette. In each division there is a depression near the centre; in the first of these half an inch of foundation green pigment should be placed, in the second a quarter of an inch of orange No. 2, in the third a blend of a quarter of an inch of green No. 3, and a quarter of an inch of gamboge. Kinopake papers in light assorted colours should be distributed for this work. Two coats of colour may be used, but one should be sufficient if properly mixed. If a second coat of the orange be added, the colour should be remixed, adding a tenth of an inch of red blend No. 1 to the orange No. 2, and a record made of the resulting blend.

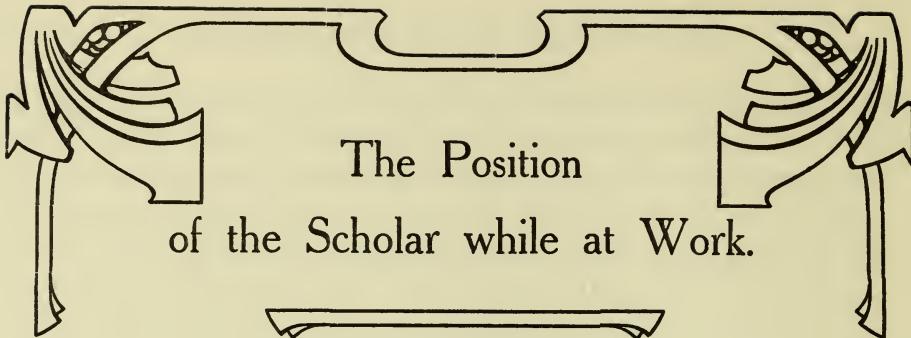
In the Primary Stage the separate mass drawing mentioned may be made either from a silhouette on a large scale drawn by the teacher, or a shadow silhouette contrived as follows:— a rough stretcher may be made and covered with thin calico; to the inner side of this full length plants of the cereals should be attached by strips of sticking plaster. This frame when placed in the window will give splendid shadow silhouettes. The advantage of this arrangement is that the scholars are drawing direct from the object itself without being perplexed with details. Where the distribution and collection of material are thoroughly organized, ample time will be available to complete the silhouettes during the observation lesson.

Whenever possible every scholar, or at least every other scholar, should have specimens of the various objects; the scholars should help to collect these, and should take care of them from lesson to lesson. Of course it is much easier for the teacher to

hold up a single specimen and lecture on it, but, if efficiency is his aim, he will see that every scholar takes a part in providing the material for the lesson. The information given in the lecture would probably be gleaned in time by the scholar without its aid, but the deductive knowledge, gained by coming into actual contact with the thing itself, will generally lead to further investigations on his own part. To many schools, of course, these remarks are not applicable, but in most much more might be done in this direction than is usually attempted.

It will be further noticed in the illustration on the first page of the Supplement that there is a vague suggestion of a water plant: this is introduced because it was incidentally mentioned by a scholar in the course of the lesson. Brush exercises also appear for reasons mentioned in Chapter XIV.





## The Position of the Scholar while at Work.

### CHAPTER XIII

IT is a matter of considerable importance that the scholars, especially the younger ones, should maintain a correct position when seated for the brushwork lesson.

In addition to the important hygienic reasons, it is impossible to make satisfactory progress in brushwork unless careful attention is given to this point ; the round-shouldered attitude often assumed is mainly responsible for the tentative and niggling work that is too often attributed to the quality of the brush or the nervousness of the scholar.

The position suggested is not one that a child naturally assumes. A young scholar, wishing to concentrate his energies, has a habit of huddling himself up in an indescribable manner, often pressing the upper part of his body against the edge of the desk.

*The Easiest Way not the Right Way.* It is not to be denied that, up to a certain point, children can make better drawings if they sit as they please ; but, if they are allowed to do so, a narrow limit is set to their achievements, and it is improbable that they will advance beyond a grade of work disappointing alike to teacher and scholar. No

matter what number of subjects or patterns are taught under these conditions, the same lack of technical excellence will mar everything that is done. Unfortunately there are no means of demonstrating this fact either to teachers or scholars.

In certain woodwork exercises it is self-evident that a correct attitude must be maintained at the bench ; it is equally as important in brushwork that the scholar should sit so that he can control the brush when held twelve inches distant from the eye, as it is that he should stand in certain positions when using the plane or saw.

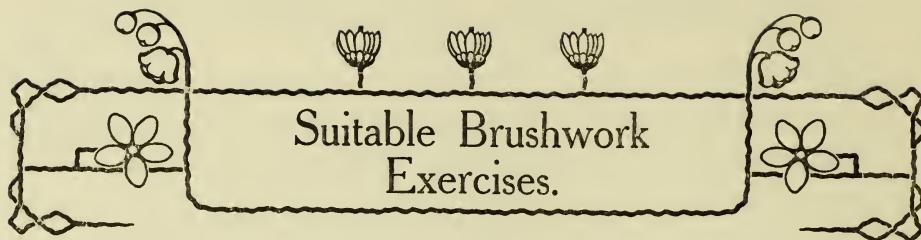
The brush should be held lightly between the forefinger and the thumb. It is helpful to regard the vertical position of the brush (i.e. the brush held at right angles to the surface of the paper) as normal, because older scholars will find it difficult to avoid holding it like a pen. When the second finger works too much in connection with the forefinger, the movement is less free than it should be. The upward stroke should be exercised as much as possible, commencing with the fingers two inches from the point of the brush. Further exercises should be taken holding the brush two-and-a-half inches and then three inches from the point.

The down stroke is easy to commence, but often finishes with the fingers in a rather cramped position, which prevents the stroke from being completed. If the upstroke be used, the brush finishes where it is under better control.

Mastery  
of the  
Brush.

The Holding  
and Moving  
of the Brush.





## CHAPTER XIV

IN the previous chapters, and in other works on the subject, great stress is laid on the importance of exercises.

In setting out a course it is therefore necessary to pay more than ordinary attention to the form the exercises are to take.

There is no arbitrary rule regarding what brush strokes should be selected, or any special way in which they should be made, but in selecting them the following requirements should be regarded :—

1. The forms selected for a course of exercises must be such as will be effective in making the scholar a master of the brush.
2. Such exercises should be type form units, which when mastered will aid the scholar to record nature forms in mass.



FIG. 1.

As an instance, the form of Fig. 1 may be considered elegant and good practice, but it is of too elaborate a nature to be of value in mass drawing from nature.

the Government syllabus, in addition to the two typical illustrations given in the Supplement, viz., the shell and the tulip.

It will be seen by these illustrations that a mass drawing may be made in two ways ; the shell is a silhouette with expression lines added, the tulip is made of a number of small mass shapes built up, the colour being so laid that an even, narrow space of the background is left, whereby expression lines are formed.

The ultimate aim of the exercises is to give the scholar power over his brush, so that he can lay small irregular masses of colour with precision. The facility to do this is only gained by exercises ; the ordinary brush drawing of objects direct from nature does not sufficiently cultivate a precision of touch. A scholar often has the power to see where expression lines should be, but has not sufficient control over his hand to produce masses with the accurate contour required.

In the following pages and in the Supplement are examples of a variety of forms suitable for brushwork exercises. From this ample selection the most suitable should be chosen. It is essential for every teacher in charge of a class to spend some time in actually reproducing the forms selected. Each stroke should be made in various directions—upward, downward, to the left and to the right.

This study will not tax the teacher to any extent, as a new element should not be introduced until the earlier one has been mastered ; in this respect it differs from the free-arm exercises that are taught rapidly, one after another, and used concurrently.

The following forms are suggested, largely because they are

Experience  
the Only  
Guide to  
Knowledge of  
Form.

The Correlation of Brushwork and Firm Point Drawing Exercise.

complimentary to outlines selected for the Kinopake free-arm course ; for although brushwork is here treated separately, it really forms part of any complete scheme of drawing and hand and eye training.

An endeavour is subsequently made to describe the action necessary for making these forms, but until the reader has made experiments in brush movements and knows the effects gained by twisting the brush between the finger and thumb, together with the results that follow the various movements of the wrist and fingers, no written description will be of much assistance.

The Brush must not be merely Laid in Position.

All brush strokes should be made by movements of the brush, the thickness being regulated by the pressure on it. The exercise known as "blobbing"—that is, merely getting an impression of the normal shape of the brush when charged with colour—should be discouraged, except for pattern making in the first year of the Kindergarten Course. The same shape can be rendered by holding the brush vertically and gently pressing it, while at the same time the brush should be slightly inclined in the direction of the point where the thick end is to finish.

The Amount of Colour in the Brush must be Regulated.

It will be some time before the scholars are able to make these impressions perfectly in all directions. Each time before putting the brush on to the paper, it should be ascertained that it is sufficiently charged with colour and also that it is not overcharged. The brush should be dipped in the colour and shaped by twisting it on the palette, and this should be done between every other stroke for short strokes, and between every stroke for large ones. It is better to make five careful attempts than fifty careless ones, even if thirty out of the fifty be good forms.

From these simple brush forms many combinations can be made by placing them together, or partially overlaying one with another.

Much ingenuity has been displayed in making forms representing, more or less correctly, many sorts of flowers, some insects and other familiar forms. For brushwork in the Kindergarten this may be regarded as an interesting occupation, at once giving delight to the children and providing practice whereby carefulness, dexterity and inventiveness may be cultivated.

For this purpose the "*Kindern Simple Series*" and the "*Helpful and Humorous Series*" brushwork cards provide an ample range of subjects.

It is immaterial whether the course is commenced with the simple brush form (provided the stroke is made by pressure from the point to the thick end, and not merely laid) or the dots and

The  
Building-up  
of Form.

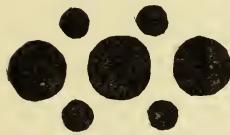


FIG. 2.

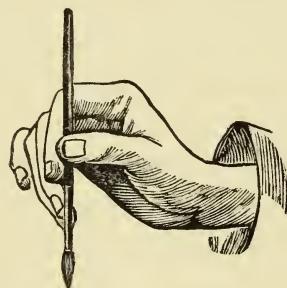


FIG. 3.



FIG. 4.

discs. While the latter (see Fig. 2) are being made, the brush should be held as nearly vertical as possible, and the large discs are made by more pressure and with a slight inclination of the brush toward the scholar.

The third brush form (Fig. 5) is a repetition of the simple brush form (Fig. 4) and is made with an additional movement of the hand tending to elongate the form ; this stroke should be practised in various directions. Much care is needed in raising



FIG. 5.

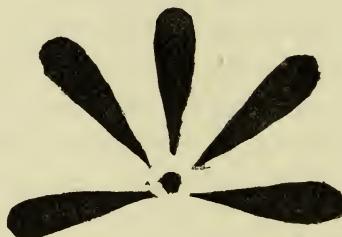


FIG. 6.



FIG. 7.

the brush, the rounded ends shown in the printed representations (Figs. 5 and 6) being difficult to obtain.

The  
Development  
of the Simple  
Brush Form.

Curved varieties of this stroke can be made as shown in Fig. 7, and will not be found difficult if the previous exercises have been carefully practised.



FIG. 8.

Combined brush forms are next introduced, and many varieties of form may be made in this manner by extra pressure on the brush. After a course consisting of exercises of two brush forms (Fig. 8), those containing three or more brush forms (Fig. 9) may be taken.

A further series of forms (Fig. 10)

Arrangement of Simple Brush Forms. may be made by holding the brush so that the handle slopes to the left or the right ; forms made in this way, laid just close

enough together to leave a narrow white space, give very good practice in dexterity. A great variety of forms of a similar character may be devised, but there is no merit in devising



FIG. 9.

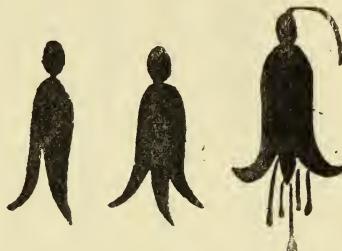


FIG. 10.

them, unless they answer a clearly defined purpose, such as indicating the veins in leaves as Fig. 11 or the spaces between the petals of flowers. Surplus ingenuity is as great a hindrance to progress in brushwork as a lack of enterprise and a blind adherence to traditional method.

The next exercise suggested (Fig. 12) is one that cannot be satisfactorily dealt with in the Kindergarten stage, and, when the Preliminary stage is commenced without the scholar having had previous experience, it should be reserved for the latter part of the second term, or even later. This form is in the shape of a spindle, and has no corresponding form in an outline exercise. The brush in this case is moved with a semi-circular sweep, the tip only coming in contact with the paper at the extreme ends. The aim is to make in one stroke a form tapering equally at each end, the thickest portion being made when the brush



The Spindle Form Stroke.

FIG. 11.

True Brush Practice.

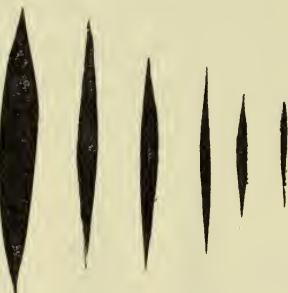


FIG. 12.

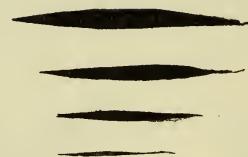


FIG. 13.

assumes a vertical position, the thickness being regulated by the extra pressure at that point. In making these strokes care must be taken that the brush handle does not lean to the right or left. This spindle should be practised in all directions.



FIG. 14.

Practice in all the spindle forms should be taken, first, holding the brush two inches; then, two-and-a-half inches; and later, three inches from the point.

The following forms (Figs. 14, 15, 16 and 17) are produced by making the same movement as for the spindles, but in this case allowing the brush to lean



FIG. 16.



FIG. 15.



FIG. 17.

toward the right or left, according to the direction in which the convex side of the form is required.

Groups of these forms (Figs. 14, 18 and 20), together with the simple spindle, should be made.



FIG. 18.

FIG. 19.

FIG. 20.

Exercises of combined spindle forms will be suggested by many forms in nature, as the horse-chestnut leaf, the palm leaf, etc. A twisted grass leaf is often represented by two of these forms, one placed above the other, slightly overlapping. Numerous instances of the spindle form in nature will be found in the Supplement to this book.

The next exercise is a compound curve in the shape of a



FIG. 21.

FIG. 22.

shallow letter *S*; when making this a slight twist of the brush between the finger and thumb is required.

This twisting of the brush would be a helpful movement with some of the earlier exercises, but it is not wise to complicate matters by introducing it before the present stage is reached. This compound curve should be practised in various lengths and thicknesses and at all angles.

The ability to predetermine a left (Fig. 21) or a right-hand (Fig. 22) stroke of this movement

shows better than any other exercise that a high degree of mastery over the brush has been acquired. Exercises that easily become automatic are not of much value, although they make a good show; after they are once mastered a continuous

use of them tends to retard rather than to advance the progress of the scholar; therefore, exercises should not take the form of a sheet full of one unit, such as are often seen in brushwork copybooks, but should show symmetrical and balanced patterns. Borders and frames for these should be made by ruling, or by drawing round templates, as in Figs. 23, 24 and 25.

Automatic  
Work to be  
Avoided.



FIG. 25.

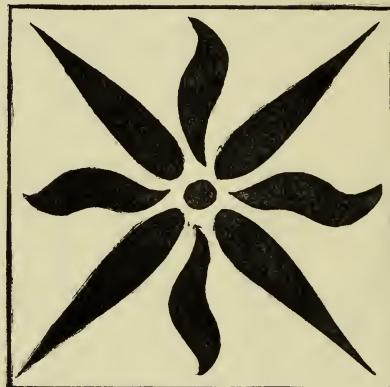


FIG. 23.

Following these compound-curve exercises a series of forms (Figs. 27 and 28) based on the spiral should have very careful attention. A mastery of each movement should be obtained before the next is attempted.

There are three typical forms of spirals (see Figs. 29, 30 and 31), each exemplified in shell forms. Examples of the spirals will also be found in the tendrils of plants and in some climbers. Close observation should be made of all these, and exercises based on them freely practised. The spiral also occupies a prominent position in decoration.

It is recommended that simple spirals should be practised in the following order :—

Fig. 28. Round Type. Right spiral made from within.

Fig. 28.      „      „      Right spiral made from without.

Fig. 27.      „      „      Left spiral made from within.

Fig. 27.      „      „      Left spiral made from without.

Fig. 32. Elliptical shaped spiral (right)

Fig. 33. Elliptical shaped spiral (left)  
both made from within.

These may be followed by such long shaped spirals as appear in shells and *convolvulus* buds. The exercise of twisting the brush between the finger and thumb enters largely into the work of making spiral forms.

A Most  
Important  
Exercise.

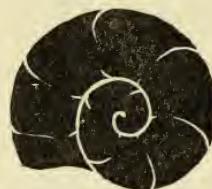


FIG. 29.

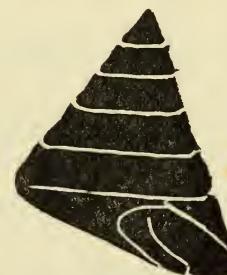


FIG. 30.



FIG. 31.

The Importance of a Progressive Knowledge of Form.



FIG. 27.



FIG. 28.

It is difficult to overestimate the value of a knowledge of the spiral form. Only after considerable dexterity in these movements has been obtained is the beauty of form and the subtle grace of curvature realized.

A well planned analysis of a few forms, on the lines of the study of the pansy in the Supplement, will lead to that unconscious analysis of form, which will help the scholar in his endeavour to represent it in line or mass.

It is at this point that the danger of ceasing to make progress is to be feared, and, when from lack of care and strenuous work, much of the advantage that should be gained by following a brushwork course is often sacrificed.

It is by no means necessary to restrict the exercises to the forms selected, but it is believed that these will afford sufficient practice in the necessary finger and wrist movements, and will prove helpful in promoting the recognition of the various curves and contours met with in those nature forms which will come under notice during a course of nature lessons.

When these exercises are mastered, the production of natural curves and contours will be easily rendered with precision and accuracy.

It will be found of great assistance to take a good representation of a nature form, photographed or drawn, and analyse its contours : the experiment of comparing these with brush form



FIG. 32.



FIG. 33.

exercises has often enabled the scholar to realize the true shape of [an object when other means have failed.

To further establish a knowledge of form, it is advisable that the scholar take a well executed mass drawing of his own, and with scissors cut the coloured paper from the plain. Let him cut the coloured paper again where the expression lines appear, and then lay the parts out on a sheet of white paper, finally pasting them down. It is astonishing how often the separate parts will be found to resemble the brush strokes of the exercises.

The Analysis  
of Form.

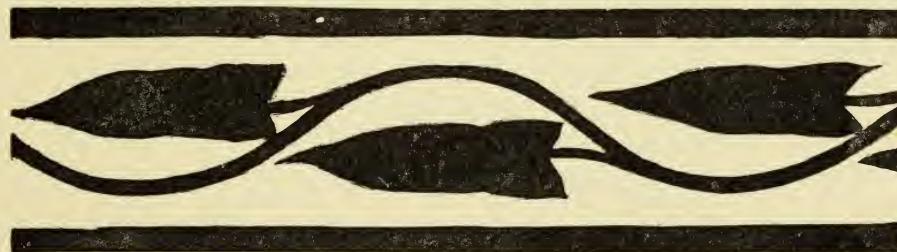


FIG. 24.

All exercises should be executed in spaces made for them, either between lines in the form of borders, or in panels made by drawing round templates.

The following templates will be found useful : A 2-inch square and a circle 2 inches in diameter ; a rectangle, 4 inches  $\times$  2 inches ; an ellipse of a corresponding size ; a 4-inch square and a 4-inch circle. In advanced exercises, pentagons, hexagons, and equilateral triangles on a 4-inch base will be useful.

The making of lines of uniform thickness for borders with the brush is not advisable ; such lines should be ruled with pencil, or pen, and the colour run in between them.

In the illustrations on page 1 of the Supplement it will be noticed that some spaces are filled with brush forms. It often seems that the scholars, knowing the exercises will not be seen after the end of the lesson, are not sufficiently interested in them ; but if once they realize that the exercises have to take a place in their books, they recognize that they must do them carefully.

Here we repeat, in case it may have been overlooked, that no whole lesson should be devoted to exercises or patterns : the first five to seven minutes of each lesson should be devoted to exercises, the remainder to representing things seen, not copies of them.

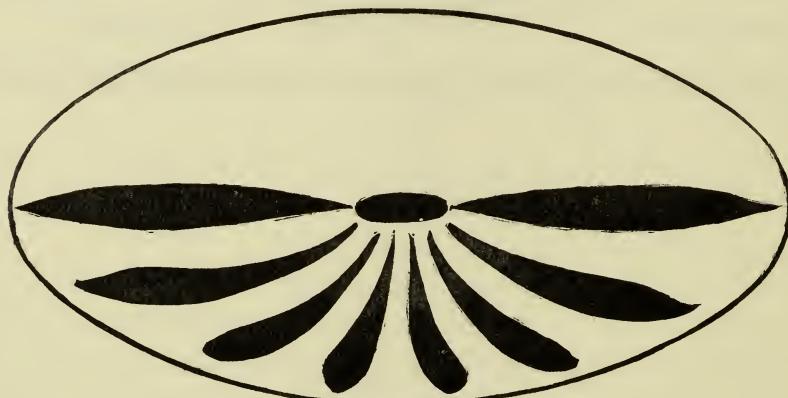
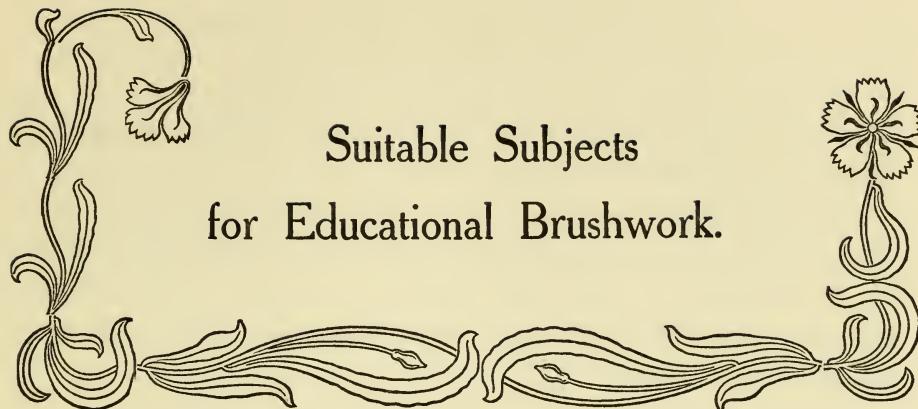


FIG. 26.

BRUSH EXERCISE IN PANEL MADE WITH ELLIPTICAL TEMPLATE.



Suitable Subjects  
for Educational Brushwork.

## CHAPTER XV

*“It is easy to make every moment of the time spent in elementary exercises of Art serviceable in other directions ; and it will be found that exercises which are directed most clearly to the acquisition of general knowledge, will be swiftest in their discipline of manual skill and most decisive in their effect on the formation of taste.”*

JOHN RUSKIN.

As brushwork is, or should be, allied in a direct and responsive manner to the studies with which it is correlated, it is not practicable to prescribe a series of subjects for a course of work. The narrow groove that brushwork has hitherto run in must be avoided. Most organic forms are more easily and accurately rendered with the brush than with the firm point ; the pencil takes precedence merely because it is more convenient to handle.

In the “*Official Suggestions to Teachers*” the following helpful remarks are made under the heading of Nature Study :—

“*Note taking is of doubtful advantage, because the scholars of the age of ten to fourteen will not have mastered the art of taking notes. . . .*

Important  
Official  
Suggestions.

*“Notes should be taken in the form of sketches. . . .*

*“A sketch with a few written labels and recorded measurements forms an excellent summary of a lesson.”*

The complete paragraph from which the above are extracts is one that should be analysed, and, with the light thus thrown on it, compared with the suggestions made on the general aim of Education and the instructions for drawing in the *Official Suggestions*.

On the same page the following sentence occurs :—

*“Care, however, must be taken not to overdo the drawing so as to make the nature study a lesson in pencil or brushwork. Rapid and intelligible diagrams only are wanted.”*

A Liberal  
View of the  
Time Table.

Brushwork  
used in the  
Redrawing  
of Notes of  
Lesson taken  
in Line.

Wanted for what? Surely, for the further study of the subject, and for connecting it with other lessons. It may be taken for granted that the rapidly drawn diagrams made by a scholar of the age mentioned will require to be carefully redrawn before they can be regarded as suitable records of an object observed. If the subject of the diagram remains available, it will probably be of great assistance to the scholar to make a more careful drawing from it ; this accomplished, the suggestion that follows will be more effectively carried out.

*“The results of the lessons should be used for exercises in description and short composition. Observation is only complete when it can be repeated in words.”*

This suggestion dispels the idea that drawing should be confined to the time set apart for it on the time table.

Associated  
Thought and  
Action.

It will be found, in most cases, that the pencil is the more convenient instrument for this diagram making, but if the sketches are preserved, and on the earliest convenient occasion

reproduced in colour, the scholars' descriptions in words will be much more intelligible and complete ; for it is a matter of common experience that thoughts which arise while the hands are engaged in a practical pursuit often lead to wiser conclusions than those which are arrived at when the subject is only studied theoretically.

Brushwork under these conditions becomes in the highest Real Correlation. sense " an integral part of the general education." Correlation in a scheme of work is good, but correlation in the heart and mind of the scholar is a force that will make education the living and growing process that it should be.

Brushwork and nature study go so naturally hand in hand that it is unnecessary to make further comment. There are many excellent books on nature study, among which Miss Dodd's *Nature Studies and Fairy Tales* and Mr. Boult's *Nature Study and Brushwork* appear to be the most helpful.

### **BRUSHWORK AND HISTORY**

" *History lessons may be illustrated by pictures of buildings, costumes, furniture, etc., of the period.*"

Hitherto heraldry has not been studied in connection with Brushwork and Heraldry. history, probably for the same reason that nature study was not taught in the past as it is now. Botany was a distinct subject, and, similarly, heraldry is at present a distinct subject ; brushwork having come to the front, it may bring heraldry in its train.

For the first lesson in the *Laws of Fesole* Mr. Ruskin gives the quartering of St. George's shield, followed by the colouring of it.

To appreciate the value of heraldic brushwork one has only to read an article on the subject in a good encyclopaedia. It provides a good exercise in drawing and colouring, besides making history more interesting. Moreover, it enables the scholar to appreciate historical pictures and monuments in a more intelligent manner.

Studies of objects of historic interest are not difficult to obtain, and the reproduction of them in colour will make them additionally attractive. Drawings of a portcullis, a keep, and of ancient weapons and armour rendered in mass, will prove of great interest. Again, by comparing the scales of a fish or a fir-cone with armour, the idea of protection can be made more clear.

Cards with illustrations and suggestions for historical drawings in pencil are to be obtained, and the adaptation of these illustrations to mass drawing would make excellent brushwork practice for the more advanced scholars. The study of the simple development of architectural style, and of ground plans of historical buildings, will make a History lesson interesting.

#### **BRUSHWORK AND GEOGRAPHY**

Map drawing will in time take a much more prominent position than it holds at present, and the new method of map building will undoubtedly obtain a recognized position in school work.

Map building should be carried out in the following manner : After a model has been made in sand, plasticene or clay, a record of the lessons should be made with opaque paint as follows :—

## Suitable Subjects for Educational Brushwork 81

take a sheet of neutral tint paper,  $10\frac{1}{2} \times 8\frac{1}{2}$  inches, to represent the sea ; partially overlay this with Kinopake foundation green pigment, to represent the land, starting from the centre, the paint is gradually carried out in various directions until a mass drawing is made of the country that forms the subject of the lesson, the contours being made as carefully and accurately as is consistent with the ability of the scholars.

Map Building.

Assuming that Great Britain be chosen for the subject, a mass drawing in green would be made of the country as a whole. For the next lesson pieces of cardboard, cut proportionately to the size and shape of the home county, would be given to the scholars, placed by them in position, and drawn round, and the space would then be overlaid with white paint. When dry, spots of red colour, varying in size, should be added to indicate the principal towns.

Colour Signs for Geographical Details.

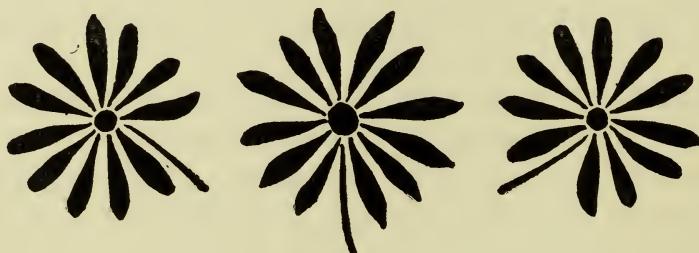
The exercise should be completed by making an index in the margin of the map specifying the meaning of the colours and signs.

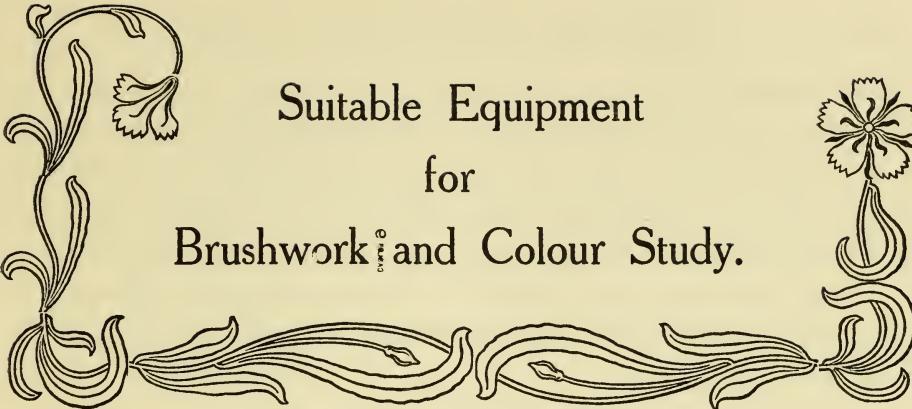
An additional map of the same country may be made, on which the railways would be traced in black and the canals and rivers in blue. Later, manufacturing and agricultural areas may be indicated by other colours. The divisions between England and Wales and England and Scotland would be shown by red lines. Beyond the index no lettering would appear on these maps, but a duplicate set of outline maps on white paper may be produced, and filled in according to the order and method used in teaching geography.

Historical maps may also be made showing the castles and abbeys, the Roman roads, etc., etc.

Historical Maps.

It has been shown already that systematic colour study forms a good introduction to scientific method and coloured diagrams will prove of great assistance as an aid to memorizing scientific as well as geographical facts. As soon as a facility in handling colour has been attained, this method of recording facts regarding the experiments carried out need not occupy any disproportionate part of the time of the lesson. The apparatus used in the science experiments provide excellent studies for the drawing lesson. Such a variety of material is used that mere outline is insufficient and colour should be employed. Where this can be done in opaque colour without outline much time will be saved, and in making geological notes this method will be found very helpful.





# Suitable Equipment for Brushwork and Colour Study.

## CHAPTER XVI

THE first thought that occurs to the teacher when starting brushwork, is what will it cost, or, for how little can it be started.

The success of brushwork depends upon the co-operation and zeal of the whole staff. If from the outset they are handicapped by an inadequate equipment, a waste of time in preparation and distribution is involved. It will be difficult to maintain sufficient interest to make the work a success, when the equipment falls below the mark to such an extent that the work suffers. It will be found better to equip one class thoroughly than two classes meagrely.

The suggestions for an equipment here given are on as economical a scale as can be devised consistently with efficient work. It is based on the idea that the teacher is persuaded that brushwork is worthy of a permanent and prominent position in the school course.

It will be found very expensive to equip a school or a class

The Loss of  
Time and  
Efficiency  
caused by  
Inadequate  
Equipment.

An  
Insignificant  
Equipment  
is not Cheap  
at any  
Price.

on a tentative plan. In two years' time the amount expended will have exceeded the amount herein suggested, and the equipment accumulated will still be insufficient for the production of good work. Suggestions are also given to prevent the waste that daily occurs where proper provision is not made to prevent it.

For the first year's work in the Kindergarten Stage the following materials will be required for a class of fifty scholars and one teacher :—

A Suggested  
Equipment  
for Fifty  
Schoiars.

- 1 Teacher's Demonstration Brush.
- 1 Quire Assorted Kinopake Demonstration Paper.
- 1 Each Teacher's Template, Ellipse, Square and Circle.
- 50 Water Wells.
- 50 Three-Division Palettes, with simple palette on the reverse side.
- 50 No. 4 Perfect Point Brushes.
- 1 Six-inch Tube of Foundation White.
- 1     ,     ,     ,     ,     ,     Orange.
- 2     ,     ,     ,     ,     ,     Green.
- 1     ,     ,     ,     ,     ,     Red.
- 1     ,     ,     ,     ,     ,     Blend No. 2 Blue.
- 3 Packets  $7\frac{3}{4}$  in. by  $7\frac{3}{4}$  in. Squares of Paper, ruled  $\frac{1}{2}$  in. squares.
- 3 Packets 9 in. by 5 in. Dove-Grey Paper, ruled 1 in. squares.
- 12 Packets 6 in. by 4 in. Assorted Art Shades (plain).
- 50 Square Templates, 2 in. by 2 in.
- 50 Circular Templates, 2 inches in diameter.
- Where the teacher is new to the work the Headline Sheets, No. 1, should be used for practice.
- The price of this equipment is under £2 2s. net.*
- For the second year's work in the Kindergarten stage the

## Equipment for Brushwork and Colour Study 85

following materials will be required for a class of fifty scholars and one teacher :—

1 Teacher's Demonstration Brush.

1 Quire Assorted Kinopake Demonstration Paper.

1 Each Teacher's Template, Ellipse, Square and Circle.

50 Water Wells.

50 Three-Division Palettes, with a simple palette on the reverse side.

50 No. 5 Perfect Point Brushes.

50 Art Paper Brushwork Books.

1 Six-inch Tube of Foundation White.

1	“	“	“	Red.
1	“	“	“	Orange.
2	“	“	“	Green.
1	“	“	“	Blue.
1	“	“	“	Brown, No. 1.
1	“	“	“	Purple, No. 1.

10 Packets Assorted Art Shades Paper, 9 in. by 5 in.

3 Packets  $7\frac{3}{4}$  in. by  $7\frac{3}{4}$  in. Cartridge Paper, ruled 1 in. squares.

50 each of the following Templates—4 in. Circles, 2 in. Circles, 4 in. Squares and 4 in. Ellipses.

For the occasional tinting of pencil outline drawings, two each of the following  $2\frac{1}{2}$  inch tubes of Kinotranspare colour should be obtained :—

Gamboge, Crimson Lake, Prussian Blue, Sepia, Sap Green, Olive Green.

The Headline Sheets, No. 1 to 6, will be found useful for the exercises in this class.

The list of material suggested for the last year of the Kinder-

Suitable Equipment for a Preliminary Class.

garten Course will also serve for the Preliminary Course, at any rate for the first term ; after that, experience will show what is required.

When the school funds permit, palette cases, water-well trays and brush boxes should form part of the equipment. These articles are made to stand ten or twelve years' constant wear, and the amount of money saved, by avoiding waste of colour and breakages and by the preservation of brushes, will pay for these articles many times over, in addition five or six minutes of each lesson will be saved by the extra rapidity with which the requisites can be distributed and collected.

Some  
Provision for  
Storage must  
be made.

When expense precludes getting special equipment of this kind, ordinary wooden boxes may be procured to hold the palettes and water-wells, and slabs of wood provided to divide one layer from another. The brushes may be stored in ordinary preserve jars.

The day has passed away when slovenly and wasteful methods of dealing with material could be tolerated. The plan of carrying the palettes, anyhow, to the wash-basins, of using bottles and jugs for colour, and storing it in such a way that it becomes stagnant and unpleasant, should be quite obsolete.

On the supposition that the supply of materials mentioned has been received, the following methods are suggested :—

The  
Importance  
of a Good  
Brush.

In the first place the brushes should be tested before they are put into use ; this process is a simple one. Fill a large basin with water, then remove the brushes from their wrappers, six at a time, and stir the water vigorously with them for a minute or two. When the hair is thoroughly soaked shake the surplus water away by a sharp downward swish, and hold the brushes

up to a good light ; if any brush does not come to a good point, or appears ragged at the thickest part, put it on one side for further examination.

When all the brushes have gone through this test, give those thrown out another trial, and if then still unsatisfactory return them to the dealers, and ask for brushes that will stand this test.

Another feature of a good brush is its spring. This can be tested, when the brush is dry, by holding it close to the ear and passing the forefinger rapidly over the hair ; the swish, heard when the hair rebounds into its normal position, will indicate the amount of spring. If one brush is much softer and more feeble than the others, it lacks the spring required. The quality known as Siberian should have much more spring than the camel hair quality.

The "Perfect Point" brushes are stamped with a date, and will be replaced by the makers if they prove unsatisfactory within two years : these are by far the cheapest brushes in the long run.

The tests suggested for the brushes are severe ones, and if a brush has passed these tests and proves unsatisfactory afterwards, it will probably be due to the fact that it has not been properly washed after use, or that it has not been put to dry in a proper manner. Brushes should not be allowed to stand in water. At the completion of a lesson the care of the brushes should be the first thought. Holding six or eight by the extreme end of the handles, they should be washed in a large basin. If the brushes have been allowed to dry with the paint on, they will require much more attention ; but in all

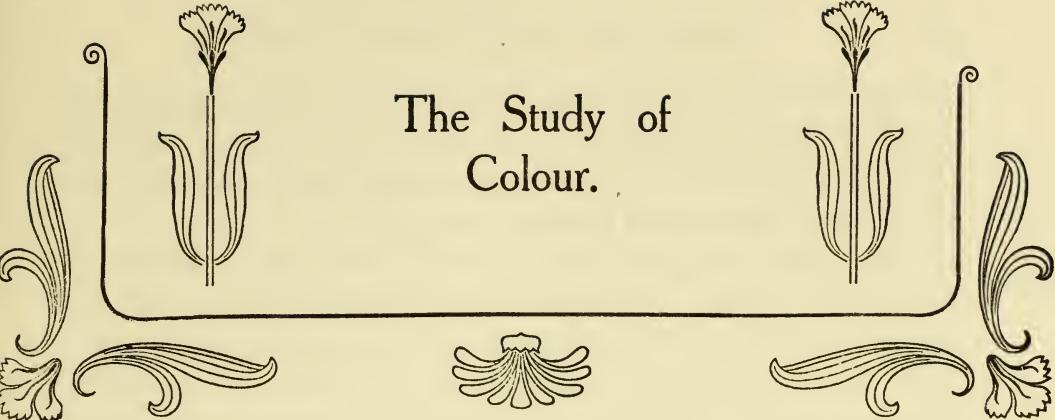
cases when set to dry they should be turned hair upward. If a drying and storing box does not form part of the equipment, preserve jars should be used, the ferules of the brushes coming above the top of the jar.

**Brushes  
Spoilt by  
using Inks.**

Careless treatment, or the using of inks or stains of any description, will as readily spoil a sable as a camel hair brush; one of the reasons, why a sable brush lasts so long, is that the purchaser, having paid a high price for it, generally treats it with the greatest care.

At the earliest possible moment each scholar should have his name or number marked on his brush, and he should be encouraged to cherish it: everybody's property is apt to be treated as nobody's, and carelessness and extravagance become the order of the day. Preliminary preparation for the brushwork lesson is not a thing that can be shirked, by forethought and method it may be elevated to an art; without this, brushwork will be a constant source of irritation, waste and inefficiency.





## The Study of Colour.

### CHAPTER XVII

*“Beauty of colour should also be pointed out, and the use of beautifully coloured shells, butterflies, birds, etc., as well as flowers and plants, will be very useful in this regard. Their tints should be compared with those of colours in decoration, dress, etc., etc., crudities should be pointed out, and something of an elementary nature should be said about the scientific principles of harmony and contrast of colour.”—Vide “Suggestion to Teachers.”*

THE faculty of perceiving colour, even when pointed out, has to be cultivated, and it is only when practice is added to perception that the beauty of colour is fully recognized. Much remains to be done in the direction of organizing the use of colour pigment in the brushwork lessons ; too often colour pigments are so indiscriminately distributed by the teacher that the scholars' capacity of enjoying colour is hindered rather than developed.

It is a matter of importance to all concerned to know that, by carefully considering the matter at the outset and by applying science in its simplest form to the distribution of colour, economy

A New Feature Recently Authorized.

Simple Science Suitably Applied.

may be effected and efficiency gained. It may be unhesitatingly affirmed that, at present, for every ounce of pigment used by the scholars, two ounces are needlessly wasted, and, what is worse, the scholars know that they are wasted.

Colour an  
Incidental  
Subject.

The simplest operations are often the most difficult to explain in writing. From the description given in the following pages the method of handling colour may seem complex ; really, after the first difficulties have been overcome, the method is simple, rapid and effective. It will save time and material, and above all it will intuitively teach order and encourage observation, deduction, method and experiment.

Didactic teaching of colour is doomed to failure ; to make it a set subject would be to rob it of every charm.

Froebel and  
Colour  
Study.

The most important feature of Froebel's first gift is colour study ; by means of this gift, and coloured mosaic tiles and coloured paper, the children in the Kindergarten learn to recognize the primary and secondary colours, and to gain a satisfactory knowledge of them in the first year's course.

When we consider the important position colour occupies in kindergarten instruction, it is surprising to find that, until quite recently, no recognized or organized endeavour has been made to carry the study of colour beyond this elementary stage.

This is still more surprising when we find colour matching is a recognized occupation, and that papers of every imaginable shade are used in mat weaving and paper folding.

A Collective  
Effort for  
Organized  
Colour  
Study.

This illogical state of affairs was recognized and deplored by every earnest Kindergartener, and many individual efforts were made to place progressive colour study on a satisfactory footing. At length, influenced largely by the prominence given to kin-

dergarten study at the Paris Exhibition, a definite course was evolved.

This not only resulted in a satisfactory scheme of colour for the Kindergarten, but it also provided an important link whereby the study in the Kindergarten could be continued in the preparatory school. This scheme, prepared for the more complete study of kindred shades and tints of opaque colour, is now known as the "Kinopake" colour scheme, and provides for instruction in colour of a purely intuitive character; in operation it is extremely simple, and it is easily graded to suit all classes of schools.

Under this scheme a standardization of colour has been effected. The colours, which are selected on a scientific basis, are as follows:—

Foundation colours: Red, blue, orange and green.

In addition to these, the following group of harmonious colours is produced in opaque water-colour pigment:—

#### COLOUR BLENDS.

Red No. 1=Bright Terra Cotta. Green No. 1=Olive Green.

“ “ 2=Shrimp. “ “ 2=Mid. Green.

“ “ 3=Red Grey. “ “ 3=Apple Green.

Blue No. 1=Wedgwood.

Purple No. 1=Purple.

“ “ 2=Turquoise.

“ “ 2=Heliotrope.

“ “ 3=Light Blue.

“ “ 3=Lavender.

Orange No. 1=Tobacco.

Brown No. 1=Warm Brown.

“ “ 2=Deep Primrose.

“ “ 2=Red Brown.

“ “ 3=Deep Cream.

“ “ 3=Bright Brown.

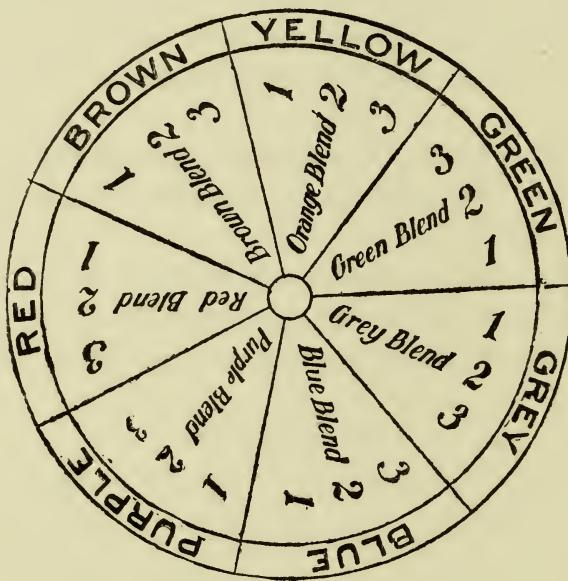
Grey No. 1=Green Grey.

“ “ 2=Grey.

“ “ 3=Light Grey.

The foundation colours and colour blends are also supplied in enamel papers prepared for paper folding, and as mats and strips of various sizes and widths for weaving.

It is intended that the scheme should be brought into operation as soon as the scholars have acquired a knowledge of the primary and secondary colours.



Colour Study  
Commenced  
in  
Kindergarten  
Occupations.

Advanced colour study is taught by purely inductive methods. The range of tints and shades is divided up into groups, and lessons on each group are taken for a period.

For instance, in mat weaving one colour only with its shades and tints is dealt with in each lesson. In each succeeding

weaving lesson a fresh contrasting colour is introduced by a change of one or two strips.

During the same period a course of paper folding and cutting should be arranged, employing the same tones in another way ; thus one by one the groups of colours come under notice ; suggestions for experiments in varying the colours should be looked for from the scholars.

The foundation colours are provided because they are essential to a general knowledge of colour, but, when a combination of colour is required, the shades and tints only should be used. The scheme has been so carried out that every combination will form a harmony ; a diagram of a colour circle should be arranged, and the time so divided that the whole circle is completed before the scholars leave the Kindergarten.

For the background of these colours, art papers have been prepared in the following tones : Auburn brown, neutral, granite, moss green and dove colour. These papers (self-colour cartons) are thick enough for mounting purposes and have surfaces suitable for brushwork.

If the mounting papers are obtained in assorted colours, each scholar may be allowed to choose the tone he prefers. When the coloured pattern is finished a comparison may be made of the work done on each tone, and each scholar may say which he likes best. *Thus the exercise of comparison and choice is made an integral part of the brushwork lesson ; reference should also be made to the results of previous work.*

Simple  
Studies in  
Harmony.

Choice and  
Comparison  
by the  
Scholar.

During these colour lessons, the scholars should be led to observe the effect of contrasted masses of colour in natural objects, and also where possible in scenery.

The  
Comparison  
of Colours  
in Common  
Objects and  
the Colours  
used in  
Brushwork.

By grouping common objects, such as a fan, an orange, a book, or a Noah's ark against various coloured backgrounds, or by placing a flowering plant alternately before a white or coloured screen, colour value may be demonstrated.

Again, a close observation should be made of the various colours, and proportionate quantities of each, in natural objects such as butterflies, feathers, shells, and particularly in such flowers as the purple pansy or the pheasant-eyed narcissus, and, so far as possible, the same tones and the same proportions may be used in pattern making with paper or opaque pigment.

Care must be taken not to develop this subject too rapidly; very little should be attempted in the Kindergarten stage, and not much in the earlier lessons of the Primary stage.

Gelatine  
Films.

For the Intermediate stage the Arts and Crafts colour films provide good scope for experimental colour lessons. Scarlet lake, rose pink, gamboge, pure yellow, permanent green, permanent blue, crimson lake and mauve are prepared in gelatine sheets, and, suitably used, it will save much waste in colour blending.

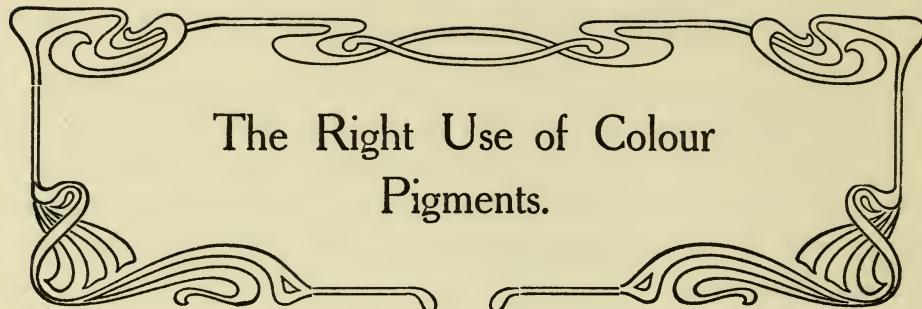
The Re-  
sponsibility  
for the Care  
of Colour  
Pigments.

In the Kindergarten and Preliminary stages of brushwork, all the colour pigments are placed under the care of the teacher. Only when the study of colour has been diligently pursued in the Primary stage can the responsibility of keeping the colour pigments be transferred to the scholars in the Intermediate stage. If, however, this later stage has been reached without much attention having been given to the recording of colour, to transfer the care of the material to the scholars would result in waste, confusion and untidy colour boxes. Under these

circumstances it is better for the teacher to retain the charge of the colour pigments until the Advanced stage is reached.

To make the work of the Advanced stage thoroughly efficient, the scholars must be called upon to select the colours to be used in each lesson and to mix their own pigments to produce the same.





## CHAPTER XVIII

*“The scholar should be taught to perceive and appreciate beauty of form and colour. The feeling for beauty should be cherished, and treated as a serious school matter ; it cannot be left to chance or caprice.”—Vide “Suggestions to Teachers.”*

The  
Simplest  
Form of  
Colour  
Pigment.

THERE are two irreconcilable systems of colour, which may be severally named the spectrum and the pigment systems. In brushwork we have to deal exclusively with the latter.

Pigments may be divided into two distinct classes :—

- (1) Opaque or body colours.
- (2) Transparent or staining colours.

Opaque colours are often referred to as tempera, and are the simplest form of water-colours.

To teach colour it is necessary to begin with the simplest and most easily controlled colour pigments.

Opaque colour is adapted for the Kindergarten, the Primary, and for the greater part of the Intermediate stages of school work. For the following reasons it is the simplest form of water-colour and the most suitable for defining masses :

opaque colour is the only medium suitable for carrying out a graded course of colour study, as the exact value of each constituent colour is recognized in the blend ; it is convenient, economical, and easily controlled by inexperienced students. Whether used on dark or light paper the colour itself is not affected, and consequently the scholar gains experience of the different effects of the same colour under varying circumstances.

With the standardized opaque pigments we have a known quantity, and it is not difficult to keep records of blends prepared for various purposes. To learn colour it is necessary to keep records of each blend as it is introduced.

The nozzle of a tube containing *Kinopake Colour* does not vary in size. The pigment as pressed out of the tube is thick, and by exercising some dexterity a short length of even thickness can be obtained ; a certain length of the colour as it leaves the tube should be deposited on a board where it can be measured off into inches and proportions of inches, and the filling of the palettes will be more rapidly accomplished in this way than by squeezing a small quantity into each palette. This practice forms a simple introduction to scientific method.

This scientific method is further extended in connection with the recording of blends of colour. When the above methods of distributing colour are adopted and the quantities of each pigment required to produce a given shade are ascertained, these quantities should be recorded for future reference, deduction and comparison. For this purpose the *Kinopake Colour Register* has been prepared.

Keeping  
Records of  
Colour  
Blends  
Made  
Possible.

Measuring  
Colour.

## EXAMPLE OF AN ENTRY IN THE KINOPAKE COLOUR REGISTER.

<u>Disc of colour made.</u> A	<u>Pigments used.</u>	<u>Quantities of each used.</u>	<u>Nature colour matched.</u>	<u>Disc of colour made.</u> B
	<i>Kinopake Green 1.</i>	<i>1 in.</i>	<i>Laurel Green</i>	•
	<i>Kinotranspare Gamboge.</i>	<i>3/10</i>		• • • • • • •

The above diagram is introduced to illustrate the method of keeping the register ; the dots on the right simply indicate perforation of the paper of the register. The discs are made by the scholar at the opening of the lesson with the colour used ; the teacher writes the name of the pigments and proportions used on the blackboard, and this the scholar copies into the register.

The Search for Colour.

At the end of the lesson the disc *B* is torn off, and the scholar taking it into the garden, field or hedgerow, seeks some leaf, stem, moss, stone, shell or flower corresponding to the colour blend on the disc. This search for colour in nature involves very close observation ; for instance, the upper and the lower sides of the leaf are necessarily noticed, and the colour may be traced down the stem. Many beautiful colours will be found in this way that would otherwise have been passed unnoticed. The purple of the briar bark, the bronze of the bramble leaf, and the beautiful red and gold colour of the autumn leaves, provide an endless variety of colour, even though the glory of the flowers of spring and summer has departed.

The development of nature study from this commencement is an easy matter. The scholars, finding further questions will

Nature Study and the Search for Colour.

be asked about their discoveries, will look for those features to which their attention has been called; the register is made complete by adding the name of a form in nature to the colour they have prepared.

The time required for the actual recording of colour blends is at most four or five minutes each time a new blend is made. A sheet at the end of a brushwork book, or the inside of the cover, may be used for this purpose, but the inconvenience of having to wait for a disc of colour to dry at the end of a lesson is a disadvantage. In using a separate colour register a disc of the colour blend is made at the commencement of the lesson and will be dry by the end.

The value of a colour register as a register of colour may not be great, but its value as a medium for inculcating habits of order, carefulness, regularity and continuity of purpose, will readily be recognized.

When dexterity has been obtained and judgment of colour is matured, the more difficult art of using transparent colours may be introduced; this, however, should follow some exercises in light and shade drawing with the firm point.

There is, however, one most useful exercise with transparent colours that may be introduced at any time during the course, that is "the art of laying flat washes" for colouring maps, diagrams or plans. When this plan is adopted the paper for the work should be white and of good quality, and, where possible, damped and stretched before use, as otherwise it will buckle.

The best colours for this purpose are the most transparent. Vermilions, chromes and ochres should be avoided, being

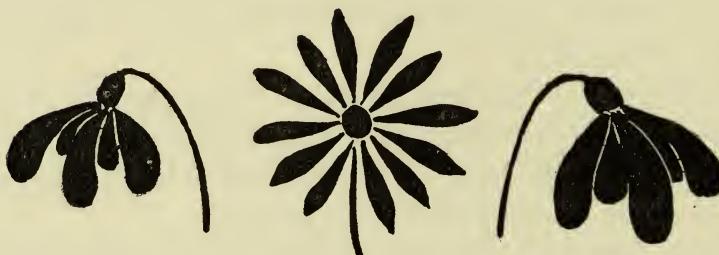
The  
Method of  
Recording  
the  
Component  
Parts of  
Colour  
Blends.

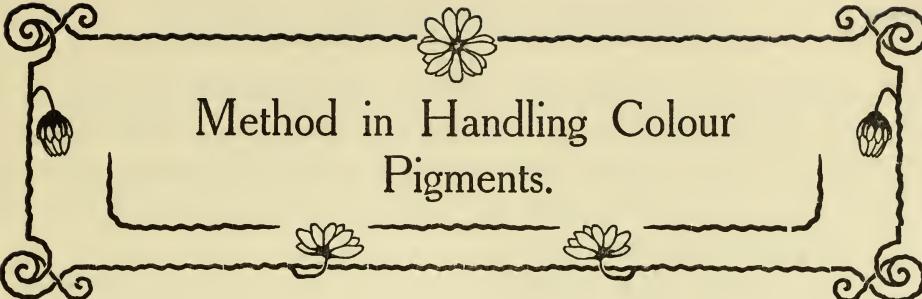
The  
Educational  
Value of  
Keeping  
Colour  
Registers.

Flat  
Teaching  
with  
Transparent  
Colours.

opaque or semi-opaque ; any colour in the Kinotranspare Series will give good washes.

In carrying out this exercise it will be found that, though the secret of success in opaque colour work is to get the colour sufficiently thick, " the secret of the successful use of transparent colour is water."





## Method in Handling Colour Pigments.

### CHAPTER XIX

IT is one thing to possess tools and materials, and another thing to know how to use them.

The artists' colourman has done much to smooth the way of the user of colour pigments, but, if efficient and economical use is to be made of them, greater care, thought and patience than are usually given are required in handling prepared colour.

Opaque colour is stiff and is less easily pressed from the tube than transparent colour; it also dries rapidly, therefore it is necessary to replace the cap immediately the required amount of colour is extracted. Care should be taken that the small piece of cork usually found under the cap is not lost; this rule applies equally to all colours in tubes.

Nothing is more common than a disagreeable stickiness on colour tubes occasioned by a leakage, and the absence of this cork is often the cause. When the cap is replaced the lead at the foot of the tube should be turned up tightly or the colour will cake at the nozzle. Should this occur, the nozzle should

The  
Loss of  
Colour  
through an  
Insufficient  
Knowledge of  
Pigments.

Patience  
and Care  
Needed with  
Undiluted  
Colour.

be cleared by a large pin. It is very important that the colour should be pressed up from the foot of the tube ; if it is pressed in the centre the wrapped foot will almost always give way. As the colour is extracted the spare lead should be wrapped over and over.

The  
Scholar's  
Responsi-  
bility.

In preparing the palettes for a class, the scholars should be called upon to assist, not merely the two or three who are careful and handy, but the whole class in turn, two or three at a time.

When possible, each scholar in the class should be allotted a palette ; this should bear his name on a label on the edge, so that he may be held responsible for its, being kept in good order. Particulars concerning this are dealt with under equipment, page 84.

The  
Distribution  
of Colour.

The palettes having been arranged in order on the table and the required colour tubes taken from their cases, a board (the lid of the palette case, or a piece of millboard about 15 inches  $\times$  10 inches, will do) is laid conveniently to receive the colour.

A Training  
for Scholars.

The teacher, having removed the cap and the cork, should take a 6-inch tube in the left hand, and with the right press the colour from the foot of the tube ; when the colour is hard a slight pressure with the left hand may also be applied. The tube should be held as near to the board as possible, and as the colour leaves the tube the hand should be moved so that the string of colour falls in a straight line of even thickness. A sufficient quantity having been pressed out to supply all the palettes, this is measured up and notched into half inches ; the scholars who are assisting will then pick these off with a modelling tool or a palette knife, and distribute them in the palettes.

For the purpose before us, a three-division palette must be used. Preparing a Palette for a Start. Into the first division, half an inch of white pigment would be placed; into the second, half an inch of green; and into the third, half an inch of yellow. The palette is thus prepared for three exercises followed by brushwork studies in three colours. White is recorded in the course of the first lesson, yellow in that of the second, and green that of the third. Directions for keeping colour registers are given in the previous chapter.

At the end of the third lesson, the little white pigment that remains may be removed with a damp cloth, and a quarter of an inch of red pigment put in its stead. Changing a Colour. Sufficient yellow would remain, but green, which is used to a greater extent than the other colours, would require renewing. Red is the colour next registered, but, unless the nature study requires it, another change should not be made until the yellow pigment is exhausted, then blue may take its place in the palette and be added to the register. The foundation colours having been disposed of in the first few lessons, such colour blends as have been purchased will follow.

Many hesitate to use ready-made blends under the impression that, having the primary colours, it is sufficient to blend these to produce any required colour. Unfortunately this is not the case with pigments. It seems a correct argument that, if blue and yellow make green and blue and red make purple, these secondary colours are not required; but, when this theory is put into practice, many teachers are perplexed to find it does not work so smoothly as they anticipated. As a rule only muddy and unsatisfactory results are obtained. There are many red, blue and yellow pigments, but no perfect

A Popular Misconception.

ones for the purpose of this theory, therefore it is better to purchase a reasonable range of colour blends.

Making  
Colour to  
Match.

When it is desired to depart from the colours chosen, where possible place the object, the colour of which you desire to match, on a sheet of paper of a contrasting shade : if the colour required is a light one, ordinary brown paper will do ; if the required colour is dark, place the object on dove-colour or white paper, in a good diffused light, about five feet distant.

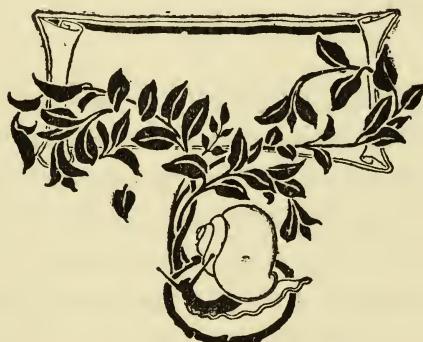
For the basis take an opaque colour somewhat lighter but as near the exact shade as possible, and then proceed methodically to experiment with other pigments calculated to produce the right effect.

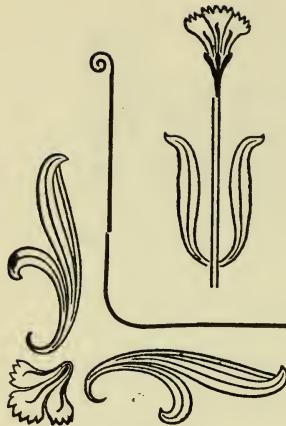
It is as well to provide a measuring tool—a flat-ended modelling tool will do—marked at a tenth of an inch from the end on one side and half an inch from the end on the other.

Measuring  
Colour for  
Experimental  
Purposes.

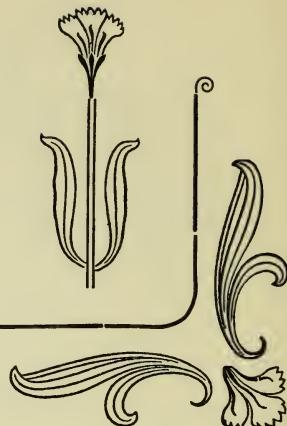
Providing a sufficient proportion of opaque colour be used, any pigment in the Kinotranspare series may be used to qualify it, or another opaque colour may be used. After removing the cap and cork from the tube, hold the measuring tool near the nozzle and press the colour out until it reaches the half inch mark ; divide this colour in two, and place each portion a short distance apart on a tile or on the back of a plate, dilute these portions to a working consistency, then take the qualifying colour and measuring off a tenth of an inch, gradually blend it with one portion of the base. If the result be not satisfactory, dilute the other quarter of an inch and try another colour. When a satisfactory result is obtained make a note of the pigments and quantities of each, and fill the palettes accordingly. A further example of colour blending is given with the outlines of a lesson in Chapter XII.

Teachers often feel that any effort in this direction entails too much trouble, but it is well to bear in mind that the rule of thumb is the rule of waste, and to do the right thing in the wrong way seldom fulfils the true aim of education.





## Concerning the Supplement.



### CHAPTER XX

IN the Supplement an endeavour has been made to show the application of the brushwork exercises to nature forms, and some typical methods of applying expression lines to mass. Thus, in the representation of maize on the first page, the principle of building up form with small masses, and of leaving a length of line to express them in larger ones, is shown. (Red has been used in this instance in place of yellow to meet a printing exigency.)

On the second page is a suggestion for the practice of the compound curve, for which more practice is needed than for any other exercise form. Below these are a whole range of compound curves, from which some may be chosen for exercises. Their application to nature form is clearly indicated by the iris on the same page. On the third page the application of the spindle form to nature is expressed in such a way as to show how indispensable is practice in this particular stroke, and the

helpfulness of a template outline when masses have to be dealt with.

On the fourth page the illustration of a tulip shows the method of disposing of masses with the least number of expression lines. The art of leaving out, as it may be called, may be practised frequently in the Intermediate stage, and studies of this kind will prove a valuable corrective when the work tends to over-elaboration. A mass drawing of this character often proves the best means of indicating the true form and the most characteristic features of a subject.

The fifth page is arranged to show how, by forethought, the same paper may be used for two or more correlated lessons. Here, by judicious spacing with templates, several diagrams or simple renderings of the honeysuckle, the vetch, and the clover are given without confusion. This illustration is reproduced full size, but the groups on page one are reduced from a scholar's book measuring 7 inches by 6 inches.

On page six is a group of more advanced forms for exercises, and instances of their use in nature drawing. The daffodil will require looking at very closely. (Work in such light tones is better done on darker paper with opaque colour.)

Page seven is devoted to a study of spiral forms and their application. The method of serrating leaves is also indicated, the general form being first made.

The last page is devoted to representative silhouettes to which expression lines have been added ; the vase forms should be greatly enlarged. The number of illustrations contained in this volume is necessarily limited, but every stage has been provided for by the *Kinopake and Kinotranspare Studies for*

*Teachers*, each series of which may be purchased separately. The larger number of these illustrations have been specially prepared for this book, but for several we are indebted to Mr. C. Lydon, who has kindly allowed us the use of some of his copyright studies.



From "Memory Drawing of Plant Form and Design." W. R. Bullmore.



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